

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-055750

(43)Date of publication of application : 20.02.2002

(51)Int.Cl.

G06F 3/00

(21)Application number : 2000-242585

(71)Applicant : CANON INC

(22)Date of filing : 10.08.2000

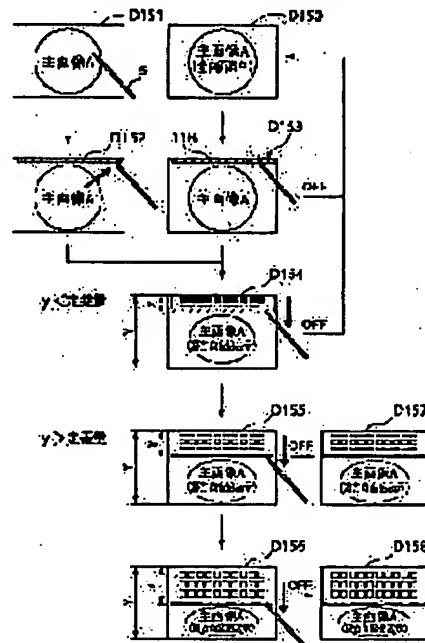
(72)Inventor : HISATOMI TATSUYA
 HASEGAWA MASATO
 NARUSHIMA HIDEKI
 MATSUMOTO SHINICHI
 OZAWA MAMORU
 ENDO YOSHIYUKI
 IWABUCHI KIYOSHI

(54) INFORMATION PROCESSOR AND FUNCTION LIST DISPLAYING METHOD AND STORAGE MEDIUM

(57)Abstract:

PROBLEM TO BE SOLVED: To simultaneously display a menu and a main picture at a small picture display part without hindering an editing work.

SOLUTION: The coordinate designation of a prescribed area 11B is operated by an input device 05 (D153), and successively the coordinate designation is continued by the input device 05, and when the designated coordinates are changed to almost the central direction of a picture display part (D154-D156), a menu corresponding to the prescribed area 11B is displayed at the picture display part according to the changing amounts of the designated coordinates. At the same time, a main picture A displayed at the picture display part just before the menu is displayed is variable-power-reduced according to the display amounts of the menu, and displayed at the picture display part (D154-D156).



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

*** NOTICES ***

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] In the information processor equipped with the image display section surrounded with the frame which accomplishes a level difference, and a coordinate assignment means to specify the coordinate location on the screen in this image display section Two or more predetermined fields on said image display section prepared near said frame, Two or more functional listing tables which were set up respectively corresponding to said two or more predetermined fields and where each includes two or more functional items, While coordinate assignment of either of said two or more predetermined fields is carried out by said coordinate assignment means and coordinate assignment is succeedingly continued by said coordinate assignment means The specified this coordinate When [of said image display section] it changes in the direction of a center mostly, A functional listing table display means to display the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out on said image display section according to the variation of said assignment coordinate, The main image currently displayed on said image display section just before a functional listing table was displayed by said functional listing table display means The information processor characterized by having a main image display means to carry out variable power contraction according to the amount of displays of the functional listing table displayed by said functional listing table display means, and to display on said image display section.

[Claim 2] It is the information processor according to claim 1 which said frame accomplishes four square shapes and is characterized by said main image display means carrying out variable power contraction of the configuration of the main image of said just before according to the aspect ratio of the viewing area which remains when a functional listing table is displayed by said functional listing table display means in the screen of said image display section.

[Claim 3] When the functional listing table displayed by said functional listing table display means is pulled out and displayed on the lengthwise direction of said frame, said main image display means Carry out variable power contraction of the configuration of the main image of said just before in said lengthwise direction, and on the other hand, when the functional listing table displayed by said functional listing table display means is pulled out and displayed on the longitudinal direction of said frame The information processor according to claim 2 characterized by carrying out variable power contraction of the configuration of the main image of said just before in said longitudinal direction.

[Claim 4] The information processor according to claim 1 to 3 which a user chooses a function based on the functional listing table displayed by said functional listing table display means, and is characterized by performing edit processing to the main image displayed by said main image display means by performing the this chosen function.

[Claim 5] Said two or more predetermined fields are information processors according to claim 1 to 4 characterized by including the field in which said contact is located on the screen of said image display section when said contact moves in the screen top of said image display section and contacts said frame including contact to which said coordinate assignment means contacts on the screen of said image display section.

[Claim 6] It is the information processor according to claim 5 which said frame accomplishes four square shapes and is characterized by locating said two or more predetermined fields in about four sides of said frame.

[Claim 7] It is the information processor according to claim 5 or 6 which said frame accomplishes four square shapes and is characterized by locating said two or more predetermined fields near the 4 angles of said frame.

[Claim 8] Said information processor is an information processor according to claim 1 to 7 characterized by

being a pocket mold information processing terminal.

[Claim 9] The information processor according to claim 1 to 8 characterized by classifying beforehand two or more functional items showing two or more information processing functions with which said information processor is equipped according to predetermined criteria, forming two or more groups, and each group corresponding to each of two or more of said functional listing tables.

[Claim 10] Said criteria are an information processor according to claim 9 characterized by being the operating frequency of a function.

[Claim 11] Said functional listing table display means is an information processor according to claim 1 to 10 which extracts the variation component of the predetermined direction from the variation of said assignment coordinate, and is characterized by pulling out the image of the functional listing table corresponding to [pull out and] said predetermined field by which coordinate assignment was carried out only in an amount according to the this extracted variation component in said predetermined direction, and displaying it on said image display section.

[Claim 12] Said functional listing table display means is an information processor according to claim 11 which will be characterized by maintaining the drawer display of said functional listing table of only said amount of drawers if said extracted variation component is larger than a predetermined value when the coordinate assignment by said coordinate assignment means is canceled.

[Claim 13] Said functional listing table display means is an information processor according to claim 11 or 12 which will be characterized by suspending the drawer display of said functional listing table if said extracted variation component is said below predetermined value when the coordinate assignment by said coordinate assignment means is canceled.

[Claim 14] Said functional listing table display means is an information processor according to claim 1 to 13 characterized by carrying out in-every-direction variable power contraction according to the variation of said assignment coordinate, and displaying all the functional items that constitute this functional listing table in the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out on said image display section.

[Claim 15] Said functional listing table display means is an information processor according to claim 1 to 13 characterized by carrying out the reduced display of all the functional items that constitute this functional listing table in the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out to said image display section also in which variation of said assignment coordinate.

[Claim 16] It is the information processor according to claim 1 to 13 characterized by what the priority of a display is beforehand set as two or more functional items which constitute a functional listing table in each of two or more of said functional listing tables, and said functional listing table display means gives priority to the high functional item of said priority in said functional listing table according to the variation of said assignment coordinate, and is displayed on said image display section.

[Claim 17] The image display section surrounded with the frame which accomplishes a level difference, and a coordinate assignment means to specify the coordinate location on the screen in this image display section, Two or more predetermined fields on said image display section prepared near said frame, In the functional listing table method of presentation applied to the information processor equipped with two or more functional listing tables which were set up respectively corresponding to said two or more predetermined fields, and where each includes two or more functional items While coordinate assignment of either of said two or more predetermined fields is carried out by said coordinate assignment means and coordinate assignment is succeeding continued by said coordinate assignment means The specified this coordinate When [of said image display section] it changes in the direction of a center mostly, The functional listing table display step which displays the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out on said image display section according to the variation of said assignment coordinate, The main image currently displayed on said image display section just before a functional listing table was displayed by said functional listing table display step The functional listing table method of presentation characterized by having the main image display step which carries out variable power contraction according to the amount of displays of the functional listing table displayed by said functional listing table display step, and which is displayed on said image display section.

[Claim 18] It is the functional listing table method of presentation according to claim 17 which said frame accomplishes four square shapes and is characterized by said main image display step carrying out variable

power contraction of the configuration of the main image of said just before according to the aspect ratio of the viewing area which remains when a functional listing table is displayed by said functional listing table display step in the screen of said image display section.

[Claim 19] When the functional listing table displayed by said functional listing table display step is pulled out and displayed on the lengthwise direction of said frame, said main image display step Carry out variable power contraction of the configuration of the main image of said just before in said lengthwise direction, and on the other hand, when the functional listing table displayed by said functional listing table display step is pulled out and displayed on the longitudinal direction of said frame The functional listing table method of presentation according to claim 18 characterized by carrying out variable power contraction of the configuration of the main image of said just before in said longitudinal direction.

[Claim 20] The functional listing table method of presentation according to claim 17 to 19 which a user chooses a function based on the functional listing table displayed by said functional listing table display step, and is characterized by performing edit processing to the main image displayed by said main image display step by performing the this chosen function.

[Claim 21] The image display section surrounded with the frame which accomplishes a level difference, and a coordinate assignment means to specify the coordinate location on the screen in this image display section, Two or more predetermined fields on said image display section prepared near said frame, Memorized as a program the functional listing table method of presentation applied to the information processor equipped with two or more functional listing tables which were set up respectively corresponding to said two or more predetermined fields, and where each includes two or more functional items. In the storage in which read-out [computer] is possible said functional listing table method of presentation While coordinate assignment of either of said two or more predetermined fields is carried out by said coordinate assignment means and coordinate assignment is succeedingly continued by said coordinate assignment means The specified this coordinate When [of said image display section] it changes in the direction of a center mostly, The functional listing table display step which displays the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out on said image display section according to the variation of said assignment coordinate, The main image currently displayed on said image display section just before a functional listing table was displayed by said functional listing table display step The storage characterized by having the main image display step which carries out variable power contraction according to the amount of displays of the functional listing table displayed by said functional listing table display step, and which is displayed on said image display section.

[Claim 22] It is the storage according to claim 21 which said frame accomplishes four square shapes and is characterized by said main image display step carrying out variable power contraction of the configuration of the main image of said just before according to the aspect ratio of the viewing area which remains when a functional listing table is displayed by said functional listing table display step in the screen of said image display section.

[Claim 23] When the functional listing table displayed by said functional listing table display step is pulled out and displayed on the lengthwise direction of said frame, said main image display step Carry out variable power contraction of the configuration of the main image of said just before in said lengthwise direction, and on the other hand, when the functional listing table displayed by said functional listing table display step is pulled out and displayed on the longitudinal direction of said frame The storage according to claim 22 characterized by carrying out variable power contraction of the configuration of the main image of said just before in said longitudinal direction.

[Claim 24] The storage according to claim 21 to 23 which a user chooses a function based on the functional listing table displayed by said functional listing table display step, and is characterized by performing edit processing to the main image displayed by said main image display step by performing the this chosen function.

[Translation done.]

*** NOTICES ***

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] Especially this invention relates to the storage which memorized the program which performs the functional listing table method of presentation applied to the information processor equipped with the image display section surrounded with the frame which accomplishes a level difference, and a coordinate assignment means to specify the coordinate location on the screen in this image display section, and this information processor, and this functional listing table method of presentation about an information processor, the functional listing table method of presentation, and a storage.

[0002]

[Description of the Prior Art] In the personal digital assistant of the conventional notebook size, the hardkey on body sheathing and the key of the touch sensor type on a liquid crystal display are operated, the function which can be performed with a personal digital assistant is chosen, and it is made to perform the function.

[0003] Moreover, the chart (menu) of the function which can be performed with a personal computer is pulled out, a desired function chooses out of it, and it is made the function performing by choosing the carbon button and the softkey using the illustration which expresses symbolically the function of the carbon button called the icon always displayed on the scope with the personal computer (it is called a "personal computer" below) carrying a big-screen display with a mouse cursor or a pointing device. In this way, the chart of the pulled-out function is called the pull down menu or the pull-up menu.

[0004]

[Problem(s) to be Solved by the Invention] When the display screen applies such a pull down menu or a pull-up menu in the narrow conventional personal digital assistant, a menu will cover the main image which should be displayed essentially. While displaying a menu as small as possible, there is no other way but for a menu to admit some main images. However, when it is hard coming to conclude a menu that it displays small and a menu is displayed greatly on the other hand, there is fault that much area of the main image will be covered with a menu. It increases as the number of functional items of this fault contained in a menu increases.

[0005] By the way, although there is a case where he wants to display a menu and the main image on coincidence and to perform an editing task, trouble will be caused to an editing task, if information important for the hidden part only by the menu having hidden some main images exists even if the metaphor menu has not covered all of the main images in such a case. Therefore, it is not desirable that the main image is covered also for a part in such a case.

[0006] This invention is made in view of such a trouble, and it aims at offering the information processor it was made not to cause trouble to an editing task even if it displayed the menu and the main image on the small image display section at coincidence, the functional listing table method of presentation, and a storage.

[0007]

[Means for Solving the Problem] In the information processor equipped with the image display section which was surrounded with the frame which accomplishes a level difference according to invention according to claim 1 in order to attain the above-mentioned purpose, and a coordinate assignment means to specify the coordinate location on the screen in this image display section Two or more predetermined fields on said image display section prepared near said frame, Two or more functional listing tables which were set up respectively corresponding to said two or more predetermined fields and where each includes two or more functional items, While coordinate assignment of either of said two or more predetermined fields is carried out by said coordinate

assignment means and coordinate assignment is succeedingly continued by said coordinate assignment means. The specified this coordinate When [of said image display section] it changes in the direction of a center mostly, A functional listing table display means to display the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out on said image display section according to the variation of said assignment coordinate, The main image currently displayed on said image display section just before a functional listing table was displayed by said functional listing table display means. It is characterized by having a main image display means to carry out variable power contraction according to the amount of displays of the functional listing table displayed by said functional listing table display means, and to display on said image display section.

[0008] Moreover, the image display section which was surrounded with the frame which accomplishes a level difference according to invention according to claim 17, A coordinate assignment means to specify the coordinate location on the screen in this image display section, Two or more predetermined fields on said image display section prepared near said frame, In the functional listing table method of presentation applied to the information processor equipped with two or more functional listing tables which were set up respectively corresponding to said two or more predetermined fields, and where each includes two or more functional items. While coordinate assignment of either of said two or more predetermined fields is carried out by said coordinate assignment means and coordinate assignment is succeedingly continued by said coordinate assignment means. The specified this coordinate When [of said image display section] it changes in the direction of a center mostly, The functional listing table display step which displays the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out on said image display section according to the variation of said assignment coordinate, The main image currently displayed on said image display section just before a functional listing table was displayed by said functional listing table display step. It is characterized by having the main image display step which carries out variable power contraction according to the amount of displays of the functional listing table displayed by said functional listing table display step and which is displayed on said image display section.

[0009] Furthermore, the image display section which was surrounded with the frame which accomplishes a level difference according to invention according to claim 21, A coordinate assignment means to specify the coordinate location on the screen in this image display section, Two or more predetermined fields on said image display section prepared near said frame, Memorized as a program the functional listing table method of presentation applied to the information processor equipped with two or more functional listing tables which were set up respectively corresponding to said two or more predetermined fields, and where each includes two or more functional items. In the storage in which read-out [computer] is possible said functional listing table method of presentation. While coordinate assignment of either of said two or more predetermined fields is carried out by said coordinate assignment means and coordinate assignment is succeedingly continued by said coordinate assignment means. The specified this coordinate When [of said image display section] it changes in the direction of a center mostly, The functional listing table display step which displays the functional listing table corresponding to said predetermined field by which coordinate assignment was carried out on said image display section according to the variation of said assignment coordinate, The main image currently displayed on said image display section just before a functional listing table was displayed by said functional listing table display step. It is characterized by having the main image display step which carries out variable power contraction according to the amount of displays of the functional listing table displayed by said functional listing table display step and which is displayed on said image display section.

[0010]

[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained with reference to a drawing.

[0011] (the -- one -- operation -- gestalt) drawing 1 -- this invention -- starting -- carrying -- a mold -- an information processor -- the -- one -- operation -- a gestalt -- a configuration -- being shown -- a front view -- it is -- drawing 2 -- drawing 1 -- being shown -- carrying -- a mold -- an information processor -- a plan -- it is -- drawing 3 -- drawing 1 -- being shown -- carrying -- a mold -- an information processor -- rear view -- it is -- drawing 4 -- drawing 3 -- being shown -- carrying -- a mold -- an information processor -- it can set -- A-A -- ' -- a cross-sectional view -- it is .

[0012] The pocket mold information processor 01 is a Personal Digital Assistant (PDA) of notebook size which

mounts the image display display 09 equipped with the engine performance which indicates the full color image information by highly minute, and mainly receives coordinate directions with the pen-type input device 05.

[0013] The camera section 07 and the microphone 06 in which sound data are mentioned are arranged at the transverse-plane side shown in drawing 1.

[0014] The shutter switch 08 is arranged at the top-face side shown in drawing 2. The shutter switch 08 consists of two steps of switches, and will be in a photography standby condition by the 1st step of switch-on, and finder image information will be displayed on the image display display 09. And photography is performed by the 2nd step of switch-on, and an image is recorded.

[0015] The tooth-back side shown in drawing 3 is a side to which actuation is mainly performed, in case a user uses the pocket mold information processor 01. It is touched in the touch panel sensor 11 on the image display display 09 by the pen-type input device 05, and a coordinate is directed by this and various functions are chosen. 10 is a loudspeaker.

[0016] If the touch panel sensor 11 has composition enclosed by the sheathing covering member 04 and the input device 05 is moved along the top face of the touch panel sensor 11 as shown in the cross-sectional view of drawing 4, the sheathing covering member 04 serves as a level difference to the touch panel sensor 11 so that it may run against the sheathing covering member 04.

[0017] Drawing 5 is drawing showing the configuration of the touch panel sensor 11.

[0018] Area 11E for an image display and the menu display trigger area 11A-11D are established in the touch panel sensor 11. The drawer menu display trigger area 11A-11D is located in the neighborhood the touch panel sensor 11 touches the sheathing covering member 04, respectively. When the input device 05 is moved along the top face of the touch panel sensor 11 and it runs against the sheathing covering member 04 by this, the input device 05 will pull out and it will be located in either of the menu display trigger area 11A-11D. In addition, it opts for the coordinate definition of the drawer menu display trigger area 11A-11D from the configuration of the nib of the input device 05 etc., and when the input device 05 is dashed by the sheathing covering member 04, it gives and defines allowances width of face as the coordinate range detected by the touch panel sensor 11 for a while. Each coordinate information that the drawer menu display trigger area 11A-11D was defined beforehand is registered into ROM. When the coordinate information by the input device 05 is detected, it collates with the coordinate information registered into ROM. When judged with the coordinate information by the input device 05 pulling out, and existing in menu display trigger area 11A - 11D It will be in the standby condition of display starting of the drawer menu mentioned later, and when it is detected that the input device 05 was further scrolled towards the center of the touch panel sensor 11, it will display a drawer menu.

[0019] Drawing 6 is drawing explaining the drawer menu displayed on the image display display 09.

[0020] In order to indicate by the menu the name of many processing facilities which the pocket mold information processor 01 has in the image display display 09, beforehand, the processing facility of those large number is roughly classified into four categories, and it assigns an A-D classification menu. And when the input device 05 draws out and either of the menu display trigger area 11A-11D is chosen, it is made to display on the image display display 09 by using the thing of correspondence as a "drawer menu" among A-D classification menus.

[0021] The contents arranged in a drawer menu are lists of the carbon button which used the icon and the text display as the base according to the specification and product concept of the pocket mold information processor 01, or examples, such as writing together of an icon and an alphabetic character, are assumed.

[0022] As a concrete functional example contained by the A-D classification menu, the retrieval function search a desired image out of the image photoed and saved in the past is summarized on A classification menu, the alphabetic character input function which adds an alphabetic character to B classification menu to an image is summarized on it, and processing and the edit function which adds special effect to C classification menu to an image is collected. In addition, since various functional processings are performed while B classification menu had been displayed on the image display display 09 as a drawer menu, B classification menu is located in the upper part of the image display display 09 so that it may mention later with reference to drawing 7, and in case it writes in an image or a function is chosen, it is prevented that the input device 05 and a hand hide an image.

[0023] The function, for example, preservation / arrangement function etc., to specify the preservation place of the image data to which the image processing was performed is summarized on D classification menu.

[0024] Drawing 7 is drawing showing the screen of the image display display 09 which B classification menu

pulled out and was displayed as a menu.

[0025] If the input device 05 is made to slide towards middle of the screen, carrying out the coordinate directions of the drawer menu display trigger area 11B with the input device 05, B classification menu will pull out and it will be displayed as menu 11b. The feature button in the icon and alphabetic character corresponding to each function is arranged by drawer menu 11b.

[0026] As mentioned above, a user can pull out using the input device 05 according to a required function, and can specify either of the menu display trigger area 11A-11D, and a menu including a required function can be displayed by scrolling. While the user is repeating and using the drawer menu display trigger area 11A-11D, he can memorize the Oita category of each area.

[0027] In addition, the number of the icons and carbon buttons which are shown by drawing 7 is set up with the magnitude of a screen, and is not limited to the number shown in drawing 7. Moreover, you may make it the drawer menu display trigger area 11A-11D use properly a setup displayed only when the predetermined area of the image display display 09 is specified with the input device 05, without usually displaying it as a setup always displayed on the image display display 09. Furthermore, the drawer menu display trigger area 11A-11D changes the pattern of each other, or changes a color, and you may make it attach distinction mutually.

[0028] In addition, in subsequent explanation, the X-axis is set as the screen longitudinal direction of the image display display 09, a Y-axis is set as the vertical direction, and the amount of drawers of a drawer menu is set to x and y, respectively as shown in drawing 5.

[0029] Drawing 8 is the block diagram showing the system configuration of the pocket mold information processor 01.

[0030] As mentioned above, by touching the software carbon button on the screen of the image display display 09 with the input device 05, the coordinate on the touch panel sensor 11 is detected, and CPU21 performs various functions based on the operation system stored in ROM25 according to the detected coordinate information.

[0031] Moreover, the speech information inputted from the image inputted from CCD22 of the camera section 07 or the microphone 06 is memorized to a flash memory 24 with the shutter switch 08, and is contained to RAM23 according to the various procedure of the program stored in ROM25. It is behind reproduced with the image display display 09 or a loudspeaker 10, and the contained information can reproduce the image to need and voice to arbitration through two or more retrieval means depended on the GUI actuation directed from the coordinate location on the touch panel sensor 11 by input device 05 contact.

[0032] Image information is edited and processed to the reproduced image information by various approaches, such as adding an image to arbitration or adding an alphabetic character to it by the word processor function using RAM23.

[0033] Drawing 9 is a flow chart which shows the outline of the operations sequence of the whole in the pocket mold information processor 01.

[0034] If the Maine power source is started (it is YES at S11), the photograph taken in the past is reproduced and it will be in the display condition which can be looked through like an album (S12).

[0035] In this condition, there is carbon button (hardkey) actuation (S13), and if it is actuation of an electric power switch, the power will be turned off. If it is actuation (half-push) of the 1st step of switch SW1 of the shutter switch 08 (S14), image display to a finder will be performed (S15), and a photography image is stored in a flash memory 24 if there is actuation (all push) of the 2nd step of switch SW2 of the shutter switch 08 (S16) (S17).

[0036] After processing of step S15 or step S17, or processing of step S12, when selection actuation of the GUI feature button is carried out by the input device 05 (S18), according to the selected function, retrieval (S19), an alphabetic character input (S20), processing and edit (S21), preservation, arrangement (S22), etc. are performed.

[0037] This invention relates to the display of the menu which contained various GUI feature buttons.

[0038] Drawing 10 and drawing 11 are flow charts which show the procedure at the time of displaying a drawer menu, and drawing 12 is drawing showing the display screen (screen in the case of choosing and displaying B classification menu especially) in the processing process which displays a drawer menu. Hereafter, it explains along with the step shown in drawing 10 and drawing 11, referring to drawing 12 suitably.

[0039] First, if the approximate account of the procedure at the time of displaying a drawer menu is carried out,

the definition coordinate of the drawer menu display trigger area 11A-11D on the touch panel sensor 11 will be beforehand registered into ROM25. When it is detected that those area was contacted by the input device 05, detection coordinate data is collated with the definition coordinate registered into ROM25, and the drawer menu corresponding to [pull out and] menu display trigger area used as the candidate for actuation is chosen, and it will be in a display standby condition. It is pulled out in the direction in which it pulled out in connection with it, and the menu was dragged with the drag of the input device 05 towards the center section of the image display display 09 when the detection coordinate was updated continuously. If detection information is turned off (contact of the input device 05 to the touch panel sensor 11 is lost, and a coordinate is no longer detected), a drawer menu will continue a display in the dragged location. Here, the contact of the input device 05 to the touch panel sensor 11 of "OFF" is lost, and it points out that a coordinate is no longer detected. Also in the following explanation, "OFF" is used in the same semantics.

[0040] First, a photograph etc. is expressed as step S101 using the full screen of the image display display 09. Screen D1 of drawing 12 shows the screen of the image display display 09 at this time. Next, the position coordinate on the touch panel sensor 11 contacted by the input device 05 is detected at step S102.

[0041] It judges whether at step S103, the coordinate value detected at step S102 is contained in either of the drawer menu display trigger area 11A-11D. When not contained, it stands by until it is contained. In addition, when a detection coordinate value exists in area other than drawer menu display trigger area 11A - 11D, is updated continuously, without being turned off, pulls out after that and moves to either of the menu display trigger area 11A-11D like Screens D3 and D4 of drawing 12 , the coordinate information before arriving at either of the drawer menu display trigger area 11A-11D serves as invalid treatment. Moreover, like Screen D2 of drawing 12 , even if a detection coordinate value is contained in one of the drawer menu display trigger area 11A-11D, when turned off, it returns to step S101.

[0042] At step S104, it judges whether a detection coordinate value pulls out and it is contained in either of the menu display trigger area 11A-11D, and if are contained in the drawer menu display trigger area 11A and 11D, and contained in the drawer menu display trigger area 11B and 11C, it will progress to step S105 to step S112.

[0043] At steps S105 and S112, pull out, carry out highlighting of the menu display trigger area, coincidence is made to generate audible tones, such as PIPITSU, as a key receptionist sound, and a user is told about the selected, selected thing. In addition, when turned off in the meantime, it returns to step S101.

[0044] In this way, a user only operates roughly the inside of large drawer menu display trigger area 11A - 11D with the input device 05, and it becomes possible to display the target menu of him.

[0045] Next, if it is made to slide towards the center section of the image display display 09, in connection with a motion of the input device 05, B classification menu will be pulled out like Screens D5-D8 of drawing 12 , without detaching the input device 05, with the touch panel sensor 11 touched, the input device's 05 pulling out and, contacting menu display trigger area 11B for example. This is explained below along with steps S113-S118 of drawing 10 and drawing 11 .

[0046] First, in step S113, only the Y coordinate value of the coordinate value detected when the input device 05 contacts the menu display trigger area 11B and 11C is supervised. Here, since drawer menu display trigger area 11B and C are chosen, X-axis information is disregarded and only Y-axis information is reflected in processing. Even if a user is not conscious of dragging the input device 05 perpendicularly correctly, he can make the intention reflect by carrying out down HEDORAGGU roughly. Although the direction which handedness drags by one of on either side generally shifts perpendicularly a little, in the case of a right-handed user, it drags by the vector from the left, i.e., the upper right, to the lower left a little perpendicularly, for example. Moreover, a sinistral drags by the vector from the upper left to the lower right by the reverse. However, it becomes possible to make an intention of a user reflect without being influenced by the above peculiarities by taking the approach in which only the change value of Y-axis information is made to reflect.

[0047] At step S114, it pulls out according to the Y coordinate value by the input device 05, and the amount of displays of a menu is updated. In addition, although the withdrawal amount of the maximum drawers of a drawer menu can change the definition according to a specification, it is defined as being the center position of a viewing area with the gestalt of this operation.

[0048] In addition, when it is turned off as shown in Screen D5 of drawing 12 while the amount y of menu drawers did not fulfill the predetermined amount of definitions, processing of a menu drawer is canceled on the way, and returns to step S101 (S115). Moreover, when it is turned off as shown in Screen D6 of drawing 12

after the amount y of menu drawers exceeded the predetermined amount of definitions, it pulls out in the location, and it is stopped and the drawer of a menu can be used as it is (S116). Furthermore, when the amount y of menu drawers exceeds the amount of the maximum drawers, the drawer of a drawer menu is stopped, the amount of the maximum drawers is maintained (S117), and a detection coordinate value is disregarded (S118). [0049] In addition, when a change rate is high-speed, even if unlike the gestalt of the above-mentioned implementation it detects the change rate of the detection coordinate value in processing progress like Screens D2, D5, and D6 of drawing 12, and it is turned off by processing of Screen D6 of drawing 12, it does not move to processing of Screen D8 of drawing 12, but you may make it move to processing of Screen D9 of drawing 12.

[0050] When the input device 05 has chosen the menu display trigger area 11A and 11D, only the X coordinate value of the coordinate value similarly detected in step S106 when the input device 05 contacts the menu display trigger area 11A and 11d is supervised. Here, Y-axis information is disregarded and only X-axis information is reflected in processing.

[0051] At step S107, it pulls out according to the X coordinate value by the input device 05, and the amount of displays of a menu is updated.

[0052] In addition, when it is turned off while the amount x of menu drawers did not fulfill the predetermined amount of definitions, processing of a menu drawer is canceled on the way, and returns to step S101 (S108). Moreover, when it is turned off after the amount x of menu drawers exceeded the predetermined amount of definitions, it pulls out in the location, and it is stopped and the drawer of a menu can be used as it is (S109). Furthermore, when the amount x of menu drawers exceeds the amount of the maximum drawers, the drawer of a drawer menu is stopped, the amount of the maximum drawers is maintained (S110), and a detection coordinate value is disregarded (S111).

[0053] Drawing 13 and drawing 14 are flow charts which show the procedure for [which pulls out and closes a menu] having been displayed, and drawing 15 is drawing showing the display screen (screen when B classification menu is chosen especially) in the process of the processing which closes a drawer menu. Hereafter, it explains along with the step shown in drawing 13 and drawing 14, referring to drawing 15 suitably.

[0054] First, suppose that the drawer menu is displayed in the amount of the maximum drawers like Screen D11 of drawing 15 (S201). Next, the position coordinate on the touch panel sensor 11 contacted by the input device 05 is detected at step S202.

[0055] It judges whether at step S203, the coordinate value detected at step S102 is contained in either of the drawer menu display trigger area 11A-11D. The function will be processed, if it judges whether the input device 05 drew out and the specific feature button in a menu (GUI feature button) was chosen (S210) and chosen, as shown in Screen D13 of drawing 15 when not contained (S211). If not chosen, it returns to step S203 and a receptionist standby condition is maintained. In addition, as shown in Screens D12 and D14 of drawing 15, when only a detection coordinate value changes and it goes into drawer menu display trigger area, the detection coordinate value till then is disregarded and will be in a standby condition from there. This is an approach for rough actuation to also receive an intention of a user certainly.

[0056] At the place (Screen D14 of drawing 15) and step S204 judged that the detected coordinate value pulls out and it is contained in either of the menu display trigger area 11A-11D at step S203 It judges whether a detection coordinate value pulls out and it is contained in either of the menu display trigger area 11A-11D. If are contained in the drawer menu display trigger area 11A and 11D, and contained in the drawer menu display trigger area 11B and 11C, it will progress to step S205 to step S212.

[0057] At steps S205 and S212, pull out, carry out highlighting of the menu display trigger area, coincidence is made to generate audible tones, such as PIPITSU, as a key receptionist sound, and a user is told about the selected, selected thing. In addition, when turned off in the meantime, it returns to step S203.

[0058] Next, when the input device 05 has chosen the menu display trigger area 11B and 11C, only the Y coordinate value of the coordinate value detected in step S213 when the input device 05 contacts the menu display trigger area 11B and 11C is supervised. X-axis information is disregarded and reflects only Y-axis information in processing. In addition, as shown in Screen D15 of drawing 15, when the input device 05 is dragged downward and the amount y of menu drawers is increasing, it ignores.

[0059] At step S214, it pulls out according to the Y coordinate value by the input device 05, and the amount of

displays of a menu is updated.

[0060] In addition, when it is turned off as shown in Screen D16 of drawing 15 while the amount y of menu drawers was over the predetermined amount of definitions, as shown in Screen D17 of drawing 15, the display condition is maintained (S215). Moreover, when it is turned off as shown in Screen D18 of drawing 15 after the amount y of menu drawers became smaller than the predetermined amount of definitions, it considers that it has the intention which a user pulls out and erases the display of a menu, and as shown in Screen D19 of drawing 15, a drawer menu display is stopped (S216).

[0061] Only the X coordinate value of the coordinate value detected by the input device's 05 pulling out and on the other hand contacting the menu display trigger area 11A and 11D in step S206 at step S204 when the input device 05 is judged to have chosen the menu display trigger area 11A and 11D is supervised. Y-axis information is disregarded and reflects only X-axis information in processing.

[0062] At step S207, it pulls out according to the X coordinate value by the input device 05, and the amount of displays of a menu is updated.

[0063] In addition, when it is turned off while the amount x of menu drawers was over the predetermined amount of definitions, the display condition is maintained (S208). Moreover, when it is turned off after the amount x of menu drawers became smaller than the predetermined amount of definitions, it considers that it has the intention which a user pulls out and erases the display of a menu, and a drawer menu display is stopped (S209).

[0064] In addition, although a user pulls out, a menu is dragged and pulled out and he is trying to suspend the display of a menu with the gestalt of the above-mentioned implementation, instead of this, a carbon button with the closed function in which it pulls out only by clicking it and the display of a menu can be suspended may be prepared.

[0065] Furthermore; when a change rate is high-speed, even if it detects the change rate of the detection coordinate value in processing progress like Screens D12, D14, and D16 of drawing 15, and it is turned off by processing of Screen D16 of drawing 15 like the case where the display of a drawer menu is started, it does not move to processing of Screen D17 of drawing 15, but you may make it move to processing of Screen D19 of drawing 15.

[0066] Drawing 16 is a flow chart which shows the procedure of the processing for which pulls out the magnitude of a drawer menu and it opts according to an amount. Moreover, drawing 17 is drawing showing the screen of A classification menu displayed according to the amount of drawers, and drawing 18 is drawing showing the screen of B classification menu displayed according to the amount of drawers. Although it pulls out on the neighborhood and the menu display trigger area 11A-11D is shown by drawing 17 and drawing 18 in order to make it intelligible, four area is not necessarily displayed. Hereafter, it explains along with the step shown in drawing 16, referring to suitably drawing 17 and drawing 18 $R > 8$.

[0067] Since steps S301, S302, S303, and S307 serve as the respectively same contents as steps S103, S104, S106, and S112 shown in drawing 10 in drawing 16, those explanation is omitted.

[0068] When A classification menu is chosen, in step S304, variable power contraction is carried out and the magnitude of a drawer menu is expressed in a longitudinal direction as the ratio of the location (the amount x of drawers) of the X coordinate to the amount of the maximum drawers. Screen D34 of drawing 17 shows A classification menu in the amount location of the maximum drawers. For example, to the amount of the maximum drawers in Screen D34 of drawing 17 when [the amount x of drawers in Screen D33 of drawing 17] it is 3/4, although the direction of Y is the same as Screen D34 of drawing 17, A classification menu in Screen D33 of drawing 17 In the direction of X, it is displayed as an image reduced to three fourths compared with Screen D34 of drawing 17. The viewing area of a carbon button is also reduced by the longitudinal direction in connection with it, and the display style of the contents of the A classification menu changes that it is as that it is writing together of an icon and an alphabetic character **** [and] according to the amount x of drawers. [that it is only an icon]

[0069] If the amount x of drawers is updated, a display ratio is updated (S305), if the input device 05 is separated from the touch panel sensor 11, it will pull out in the location and a menu display will be held in the location in the middle of reaching the amount location of the maximum drawers. And if the amount x of drawers begins to carry out the maximum sleeper and exceeds an amount, a drawer menu display will be held in the amount location of the maximum drawers (S306).

[0070] Next, when B classification menu is chosen, in step S308, variable power contraction is carried out and the magnitude of a drawer menu is expressed to a lengthwise direction as the ratio of the location (the amount y of drawers) of the Y coordinate to the amount of the maximum drawers. Screen D38 of drawing 18 R> 8 shows B classification menu in the amount location of the maximum drawers. For example, to the amount of the maximum drawers in Screen D38 of drawing 18 when [the amount y of drawers in Screen D37 of drawing 18] it is 3/4, although the direction of X is the same as Screen D38 of drawing 18 , B classification menu in Screen D38 of drawing 18 In the direction of Y, it is displayed as an image reduced to three fourths compared with Screen D38 of drawing 18 . The viewing area of a carbon button is also reduced by the lengthwise direction in connection with it.

[0071] If the amount y of drawers is updated, a display ratio is updated (S309), if the input device 05 is separated from the touch panel sensor 11, it will pull out in the location and a menu display will be held in the location in the middle of reaching the amount location of the maximum drawers. And if the amount y of drawers begins to carry out the maximum sleeper and exceeds an amount, a drawer menu display will be held in the amount location of the maximum drawers (S310).

[0072] In addition, although A and B classification menu were mentioned as the example and explained above, a procedure with the same said also of C and D classification menu is applied. Moreover, in addition, when closing a drawer menu display, a procedure progresses to the reverse sense of the processing shown in drawing 16 .

[0073] Drawing 19 is drawing showing the screen of the image display display 09 which explains relation with the A-D classification menu pulled out to be the drawer menu display trigger area 11A-11D.

[0074] In the screen of the image display display 09, the directions of an image processing where variable power contraction of the direction of a drawer of a drawer menu, the coordinate information to receive, and the layout in a menu is carried out differ by which is chosen by the input device 05 among the drawer menu display trigger area 11A-11D.

[0075] Screen D41 shows drawer menu display trigger area 11A chosen in case A classification menu is pulled out, and its direction to pull out, and Screen D42 shows the condition of having pulled out A classification menu to the amount location of the maximum drawers.

[0076] Screen D41 shows drawer menu display trigger area 11A chosen in case A classification menu is pulled out, and its direction to pull out, and Screen D42 shows the condition of having pulled out A classification menu to the amount location of the maximum drawers.

[0077] Screen D43 shows drawer menu display trigger area 11B chosen in case B classification menu is pulled out, and its direction to pull out, and Screen D44 shows the condition of having pulled out B classification menu to the amount location of the maximum drawers.

[0078] Screen D45 shows drawer menu display trigger area 11C chosen in case C classification menu is pulled out, and its direction to pull out, and Screen D46 shows the condition of having pulled out C classification menu to the amount location of the maximum drawers.

[0079] Screen D47 shows drawer menu display trigger area 11D chosen in case D classification menu is pulled out, and its direction to pull out, and Screen D48 shows the condition of having pulled out D classification menu to the amount location of the maximum drawers.

[0080] The drawer menu shown in drawing 19 is an example on explanation, and the number of the icons in a drawer menu differs from magnitude according to the number of each functions, or the magnitude of the image display display 09.

[0081] (Gestalt of the 2nd operation) The gestalt of the 2nd operation is explained below.

[0082] Since the configuration of the 2nd operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 2nd operation gestalt.

[0083] With the 2nd operation gestalt, the contents of the control processing performed with the pocket mold information processor 01 differ from the 1st operation gestalt.

[0084] Drawing 20 is a flow chart which shows the procedure of the display process of the drawer menu in the 2nd operation gestalt. In this display processing, a phase display is performed according to the priority of a function. Drawing 21 is drawing showing the range a, b, and c on the screen of the image display display 09, drawing 22 is drawing showing the screen of A classification menu displayed according to the amount of

drawers, drawing 23 is drawing showing the screen of B classification menu displayed according to the amount of drawers, and drawing 24 is drawing showing the screen of C classification menu displayed according to the amount of drawers. Hereafter, it explains along with the step of the flow chart shown in drawing 20, referring to drawing 21 - drawing 24 suitably.

[0085] If there are too many items in the drawer menu which can be looked through at once if an outline is explained first, it may waver in selection, and user-friendliness may be worsened. Supposing such a case, the number of items which can be looked through is restricted, it divides into two steps or a three-stage sequentially from what has a high priority, and a functional item is expressed as the 2nd operation gestalt. That is, the inside of each drawer menu arranges and displays a functional item on order with high operating frequency from the direction near drawer menu display trigger area. It enables this to choose the high functional item of operating frequency only by pulling out a single-tier eye.

[0086] For example, in drawing 22, the item A-1 shown in Screens D52 and D53, A-2, and A-3 will be functional items most often used, and if the item A-4 shown in Screen D53, A-5, and A-6 are compared with an item A-1, A-2, and A-3, they will be the low functional item of operating frequency. Thus, a drawer menu becomes possible [using arranging like the drawer of a desk].

[0087] The maximal term number of divisions displayed in a drawer menu changes with the magnitude of a screen, and functions of an icon. For example, a maximum of six items are expressed as A and C classification menu, and 30 items beside [10] vertical 3x are expressed as B classification menu. With B classification menu, it can assume arranging the pallet function of a color. Moreover, with B classification menu, the display step of a three-stage is attached according to the number of vertical.

[0088] The flow chart of drawing 20 takes up and shows the display of A classification menu to the example. Since steps S401, S402, and S403 serve as the respectively same contents as steps S103, S104, and S106 shown in drawing 10, those explanation is omitted.

[0089] When the input device 05 is moving and the detection X coordinate value is changing, only the location of drawer menu display trigger area is updated, it pulls out corresponding to the detection X coordinate value in front of OFF, and the layout in a menu is determined and displayed in the place where the detection X coordinate value was turned off.

[0090] When a detection X coordinate value is first turned off at step S404 in the range a shown in drawing 21, Screen D51 of drawing 22 is displayed.

[0091] Moreover, when a detection X coordinate value is turned off at step S405 in the range b shown in drawing 21, Screen D52 of drawing 22 is displayed.

[0092] Moreover, when a detection X coordinate value is turned off at step S406 in the range c shown in drawing 21, Screen D53 of drawing 22 is displayed.

[0093] In addition, when the input device 05 moves and each boundary of Range a, b, and c is crossed, an audible tone is made to send and a user is notified of it.

[0094] In addition, although subdivided, fundamental structure is the same [the number of Range a, b, and c also increases and], as the number of trains of the functional item arranged in a drawer menu increases. When closing the display of a drawer menu, it can close gradually similarly. Other B, C, and D classification menu are also displayed by the same procedure.

[0095] (Gestalt of the 3rd operation) The gestalt of the 3rd operation is explained below.

[0096] Since the configuration of the 3rd operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 3rd operation gestalt.

[0097] With the 3rd operation gestalt, the contents of the control processing performed with the pocket mold information processor 01 differ from the 1st operation gestalt.

[0098] Drawing 25 is a flow chart which shows the procedure of the display process of the drawer menu in the 3rd operation gestalt. The escape of the amount of the maximum drawers is performed in this display processing. Drawing 26 is drawing showing the screen of A classification menu displayed on the screen of the image display display 09 according to the amount of drawers. First, the description of the gestalt of the 3rd operation is explained with reference to drawing 26.

[0099] A drawer menu is displayed using the maximum to all the viewing areas of the image display display 09, and more functional items are expressed as the 3rd operation gestalt.

[0100] With the 1st operation gestalt mentioned above, although the amount of the maximum displays of a drawer menu was set up with the (half-viewing area) to the location of the core of the image display display 09, there was consideration it is made not to hide the image which should be essentially displayed on the image display display 09 as the reason as much as possible. However, depending on the property of a functional item, the display image does not necessarily need to be displayed essentially, and the direction which raises the list nature of the functional item in a drawer menu rather may be called for.

[0101] For example, in a retrieval function, originally, a display image is not required, as shown in Screens D65 and D69 of drawing 26 in this case, pulls out all the viewing areas of the image display display 09, and uses them for the display of a menu. On the other hand, in an image edit function, originally, the display image is required, originally is pulled out with a display image in this case, and displays a menu on coincidence. The amount of the maximum displays of the drawer menu in this case is set to one half of the screens of the image display display 09.

[0102] In addition, since a functional item with the high frequency which chooses a function as up-and-down B and C classification menu while looking at a display image originally is contained, it enables it to pull out B and C classification menu to the one half of the screen of the image display display 09, and enables it to pull out A on either side and D classification menu to all the viewing areas of the image display display 09 with the gestalt of this operation.

[0103] Even when enabling it to pull out a drawer menu to all the viewing areas of the image display display 09, as shown in Screens D62-D65 of drawing 25, regardless of the amount of drawers, there may be a method which displays all functional items in a drawer menu, and a method which changes gradually the number of the functional items displayed in a drawer menu according to the amount of drawers as shown in Screens D66-D69 of drawing 25. It may be made to mount with the property of a functional item by choosing one of methods, or a user may enable it to choose either of both methods freely.

[0104] The flow chart of drawing 25 takes up and shows the display of A classification menu to the example. Since steps S501, S502, and S503 serve as the respectively same contents as steps S103, S104, and S106 shown in drawing 10, those explanation is omitted.

[0105] While updating the display position of drawer menu display trigger area 11A according to the detection X coordinate value by contact of the input device 05, the functional item accompanying it is expressed as step S504. If the input device 05 is turned off at this time, that display condition will be maintained.

[0106] Moreover, step S505 shows display processing of a drawer menu when the input device 05 is moved in the direction opposite to the migration direction in step S504, and even in this case, it displays the functional item accompanying it while it updates the display position of drawer menu display trigger area 11A according to a detection X coordinate value. If the input device 05 is turned off at this time, that display condition will be maintained.

[0107] And the input device 05 will suspend the display of a drawer menu, if it moves in the migration direction in step S505 further and the detection X coordinate value x becomes smaller than the predetermined amount of definitions (S506).

[0108] That is, the definition of the amount of the maximum drawers is not prepared, but all the viewing areas of the image display display 09 are pulled out, and it enables it to use it for the display of a menu with the gestalt of the 3rd operation.

[0109] (Gestalt of the 4th operation) The gestalt of the 4th operation is explained below.

[0110] Since the configuration of the 4th operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 4th operation gestalt.

[0111] With the 4th operation gestalt, the contents of the control processing performed with the pocket mold information processor 01 differ from the 1st operation gestalt.

[0112] Drawing 27 is a flow chart which shows the procedure of the display process of the drawer menu in the 4th operation gestalt. In this display processing, the number of drawer menus is increased to 8 from 4. Drawing 28 is drawing showing the increment drawer menu displayed on the screen of the image display display 09. First, the description of the gestalt of the 4th operation is explained with reference to drawing 28.

[0113] although it pulled out in the four sides of the image display display 09 and the menu display trigger area 11A-11D is formed with the gestalt of the 1st operation -- the gestalt of the 4th operation -- the number of

categorization of a functional item -- further -- an increase -- four angles of **** and the image display display 09 as shown in Screen D70 of drawing 28 are used as trigger area a, b, c, and d.

[0114] That is, four angle locations of the image display display 09 which avoided the drawer menu display trigger area 11A-11D are made into the trigger area a, b, c, and d, and little functions (for example, a detail setup, a user setup, etc.) of operating frequency, such as a special setup, are assigned to this area.

[0115] Usually, to enlarging the screen product, the drawer menu display trigger area 11A-11D for pulling out the functional item to be used makes the screen product small so that the trigger area a, b, c, and d may not be conversely displayed simply by an operation mistake etc., so that it may be easy to contact with the input device 05. In addition, since the input device 05 runs against the level difference of image display display 09 perimeter, when selection actuation is carried out being conscious of the trigger area a, b, c, and d, it can choose easily.

[0116] With reference to the flow chart of drawing 27, by carrying out selection actuation of the trigger area a explains especially the processing as which a classification detail menu is displayed. In addition, the steps S101 and S which show steps S601, S602, S603, S604, and S605 to drawing 10 -- since it is 102, 103, and the respectively same contents as S104 and S105, those explanation is omitted. However, at steps S603-S605, the drawer menu display trigger area 11A-11D shall be read in the trigger area a, b, c, and d, respectively, and shall be changed into it.

[0117] According to the detection coordinate value by contact of the input device 05, the display position of the slanting bar 30 is decided and expressed as step S606. That is, as shown in Screen D72 of drawing 28, when the detection coordinate value of the X-axis and a Y-axis is set to x and y on the basis of the location of the trigger area a, a value with the larger absolute value among the detection coordinate value x and y is detected, and the display position of the slanting bar 30 is decided according to this detection value. Specifically along with the slanting line prolonged in the direction of 45 degrees from the radix point, the slanting bar 30 prolonged in the direction perpendicular to the above-mentioned slanting line is displayed on the location which only the distance equivalent to a detection value left from a radix point. And if the above-mentioned detection value is less than a predetermined value and return and the above-mentioned detection value are over the predetermined value on Screen D70 of drawing 28 when the input device 05 is turned off, as Screen D73 of drawing 28 R> 8 shows, a display condition as it is will be maintained.

[0118] Moreover, at steps S607 and S608, if the above-mentioned detection value is over the amount of the maximum drawers, as Screen D74 of drawing 28 shows, a display condition will be maintained in the amount location of the maximum drawers. And even when the input device 05 is turned off, as Screen D75 of drawing 28 shows, a display condition is maintained in the amount location of the maximum drawers.

[0119] Display processing in the middle of a drawer is the same as display processing in the gestalt of the 1st operation.

[0120] (Gestalt of the 5th operation) The gestalt of the 5th operation is explained below.

[0121] Since the configuration of the 5th operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 5th operation gestalt.

[0122] With the 5th operation gestalt, the contents of the control processing performed with the pocket mold information processor 01 are similar with the 4th operation gestalt.

[0123] Drawing 29 is a flow chart which shows the procedure of the display process of the drawer menu in the 5th operation gestalt. The number of drawer menus is increased to 8 from 4 like [this display processing] the 4th operation gestalt. Drawing 30 is drawing showing the increment drawer menu displayed on the screen of the image display display 09. Hereafter, the description of the gestalt of the 5th operation is explained along with the step of the flow chart shown in drawing 29, referring to drawing 30.

[0124] steps S601 and S which show steps S701, S702, S703, and S704 to drawing 27 in the flow chart of drawing 29 -- since it is 602, 603, and the respectively same contents as S604, those explanation is omitted. However, at steps S703-S704, the drawer menu display trigger area 11A-11D shall be read in the trigger area a, b, c, and d, respectively, and shall be changed into it. In addition, with the flow chart of drawing 29, by carrying out selection actuation of the trigger area a explains especially the processing as which a classification detail menu is displayed.

[0125] At step S705, while the start button which starts a setting menu will be shown a pop-up table and highlighting of this part will be carried out as shown in Screen D82 of drawing 30 if coordinate detection of the

trigger area a is carried out by contact of the input device 05, an audible tone occurs. In addition, if the input device 05 is turned off here, it will return to step S701.

[0126] In the state of the view as popup, as shown in Screen D83 of drawing 30, direction HESURAI DO of the diagonal right of the input device 05 is carried out a little, it reaches in a start-button field (S706), if turned off, executive operation of the menu display processing relevant to a start button will be carried out, and a detail setting menu as shown in Screen D84 of drawing 30 will be displayed (S707).

[0127] In order to close a detail setting menu, after carrying out the coordinate directions of near the "setting" alphabetic character shown in Screen D84 of drawing 30 with the input device 05, the input device 05 is moved to a trigger area a field. In addition, you may make it arrange the carbon button closed on somewhere in screens D84 of drawing 30.

[0128] In addition, it is more desirable to limit the number of detail menus to about two, since the display of this detail menu is premised on that operating frequency is low and an operation mistake cannot happen easily, although it is possible to divide into the basic menu of a maximum of four categories and the category of the other four detail setting menus also with the gestalt of the 5th operation in respect of facility.

[0129] Drawing 31 is drawing showing other examples of a display of the increment drawer menu displayed on the screen of the image display display 09.

[0130] Even when facility was furthermore taken into consideration and the number of detail menus is limited to two, in the point on which location to display the two detail menus, it is desirable for a location to be changeable according to a user's handedness. That is, the stroke direction where the stroke direction natural for dextrism is natural for the lower left -> upper right (Screen D87 of drawing 31) and a sinistral needs to change a display position according to the principle of the upper left -> lower right (Screen D88 of drawing 31), for dextrism, a display position like Screen D85 of drawing 31 is assigned, and a display position like Screen D86 of drawing 31 is assigned for sinistrals.

[0131] After choosing the software carbon button on a screen like equipment before compared with the only chosen operating instructions with an input device, the display of the menu in consideration of this handedness is realized by using abundantly actuation of making a screen top sliding and making a command processing.

[0132] (Gestalt of the 6th operation) The gestalt of the 6th operation is explained below.

[0133] Since the configuration of the 6th operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 6th operation gestalt.

[0134] It enables it to express a drawer menu on plurality and the image display display 09 as the 6th operation gestalt at coincidence. That is, it is the approach of applying, when the screen size of the image display display 09 is oversized, and enables it to display a drawer menu on two, three, or 4 coincidence.

[0135] First, when displaying a drawer menu on 2 coincidence, according to the physical relationship of two menus to pull out, it is distinguished by the relation of the direction of a right angle (adjoining location), and parallel (confrontation location) relation, and the direction of a right angle has four kinds, and there has a display pattern of two kinds of physical relationship in parallel, respectively. The method of presentation changes also with sequence furthermore pulled out, and the method of presentation of the menu displayed previously is influenced of the menu pulled out later.

[0136] Although explained as one half of a screen, the amount of the maximum drawers is pulled out in the location of the arbitration in the middle of a drawer, and the display of a menu may be held or you may make it extend the amount of the maximum drawers to a full screen depending on a specification on account of explanation, below, as it is not limited to this and the gestalt of said the operation of each showed.

[0137] Drawing 32 is a flow chart which shows the procedure of processing of a coincidence display of the drawer menu to two four or more in the 6th operation gestalt.

[0138] Any one of A-D classification menus is expressed as step S801.

[0139] Next, when it pulls out and any one except a menu displayed at step S801 among A-D classification menus is chosen by the input device 05, as step S802 shows, subsequent processing is divided according to the physical relationship between both drawers menus. That is, if it is parallel (confrontation location) relation, it will progress to step S803, and if the physical relationship between both drawers menus is the relation of the direction of a right angle (adjoining location), it will progress to step S805.

[0140] When [which was displayed later] it pulls out and a menu is pulled out continuously, at step S803, the

variable power reduced display of the drawer menu displayed first is carried out to the same shaft orientation, keeping the distance between both drawers menus constant. And at step S804, it is fixed in the place which was displayed later and where it pulled out at and the size of a menu became one fourth of screens.

[0141] At step S805, when [which was displayed later] it pulls out and a menu is pulled out continuously, a variable power reduced display is carried out in the direction of the drawer of the drawer menu later displayed in the menu by pulling out displayed first. And at step S806, it is fixed in the place which was displayed later and where it pulled out at and the size of a menu became one half of screens.

[0142] Drawing 33 and drawing 34 are flow charts which show the concrete procedure of the procedure shown in drawing 32. Drawing 35 - drawing 38 are drawings showing two drawer menus displayed by coincidence on the screen of the image display display 09 according to the amount of drawers. Moreover, drawing 39 - drawing 42 It is drawing showing three drawer menus displayed by coincidence on the screen of the image display display 09 according to the amount of drawers, and drawing 43 - drawing 46 are drawings showing four drawer menus displayed on the screen of the image display display 09 according to the amount of drawers. In addition, the figure indicated on each drawer menu of drawing 35 - drawing 46 is a figure which shows the pulled-out sequence, and image display is not carried out. Hereafter, it explains along with the step shown in drawing 33 and drawing 34, referring to suitably drawing 35 R> 5 - drawing 46.

[0143] Suppose first that A classification menu was pulled out and it was first expressed as step S901.

[0144] Next, when any one of B-D classification menus is chosen by the input device 05, as (S902) and step S903 show, subsequent processing is divided according to the physical relationship between both drawers menus.

[0145] When D classification menu (tool) was chosen, it progresses to step S904 and D classification menu (tool) is continuously pulled out since it has a parallel (confrontation location) relation, the variable power reduced display of the A classification menu (tool) is carried out to X shaft orientation, keeping constant the distance between D classification menus (tool). This is shown in Screens D109-D111 of drawing 37.

[0146] Next, if B classification menu (tool) is chosen as three drawer menus at step S905 when any one of B and C classification menus is chosen by the input device 05 At the same time it progresses to step S907 and displays B classification menu (tool) according to the amount of drawers of Y shaft orientations According to the amount of drawers of Y shaft orientations of B classification menu (tool), the variable power reduced display of A classification menu (tool) and D classification menu (tool) which have already been displayed is carried out to Y shaft orientations. This is shown in Screens D125-D127 of drawing 41.

[0147] Moreover, according to the amount of drawers of Y shaft orientations of C classification menu (tool), the variable power reduced display of A classification menu (tool) and D classification menu (tool) which have already been displayed is carried out to Y shaft orientations at the same time it progresses to step S908 and expresses C classification menu (tool) as step S905 according to the amount of drawers of Y shaft orientations, when C classification menu is chosen by the input device 05.

[0148] Next, if it is C classification menu (tool) when the 4th classification menu is chosen by the input device 05, it will progress to step S910 and C classification menu (tool) will be expressed as step S909 according to the amount of drawers of Y shaft orientations. This is shown in Screens D138-D140 of drawing 45.

[0149] Moreover, if it is B classification menu (tool) when the 4th classification menu is chosen by the input device 05, it will progress to step S911 and B classification menu (tool) will be expressed as step S909 according to the amount of drawers of Y shaft orientations.

[0150] Since it has the relation of the direction of a right angle (adjoining location) to A classification menu (tool) if B and C classification menu (tool) are chosen when it returns to step S902 and any one of B-D classification menus is chosen by the input device 05 as the 2nd drawer menu, it progresses to steps S912 and S913.

[0151] If B classification menu (tool) is chosen, according to the amount of drawers of Y shaft orientations of B classification menu (tool), the variable power reduced display of the A classification menu (tool) already displayed will be carried out to Y shaft orientations at the same time it displays B classification menu (tool) in step S912 according to the amount of drawers of Y shaft orientations. This is shown in Screens D101-D103 of drawing 35.

[0152] Moreover, if C classification menu (tool) is chosen, according to the amount of drawers of Y shaft orientations of C classification menu (tool), the variable power reduced display of the A classification menu

(tool) already displayed will be carried out to Y shaft orientations at the same time it displays C classification menu (tool) in step S913 according to the amount of drawers of Y shaft orientations.

[0153] Next, at step S914, when three drawer menus are chosen by the input device 05, as step S915 shows, subsequent processing is divided according to the physical relationship between the 2nd drawer menu.

[0154] When the 2nd drawer menu is B classification menus (tool) and the 3rd drawer menu is C classification menus (tool), Or since it has a parallel (confrontation location) relation when the 2nd drawer menu is C classification menus (tool) and the 3rd drawer menu is B classification menus (tool) When it progressed to step S916 and C or B classification menu (tool) is pulled out continuously, According to the amount of drawers of Y shaft orientations of C or B classification menu (tool), the variable power reduced display of B or C classification menu (tool) already displayed is carried out to Y shaft orientations at the same time it displays C or B classification menu (tool) according to the amount of drawers of Y shaft orientations. And A classification menu (tool) does not perform variable power contraction only by moving a location. This is shown in Screens D117-D119 of drawing 39.

[0155] On the other hand, since it has the relation of the direction of a right angle (adjoining location) to the 2nd drawer menu when the 3rd drawer menu is D classification menus (tool) The variable power reduced display of B or C classification menu (tool) already displayed is carried out to Y shaft orientation at the same time it displays D classification menu (tool) according to the amount of drawers of X shaft orientations, when it progresses to step S917 and D classification menu (tool) is pulled out continuously. And the variable power reduced display of the A classification menu (tool) is carried out, maintaining the distance between D classification menus (tool) uniformly according to the amount of drawers of D classification menu (tool). Variable power contraction is not performed only by moving a location according to the amount of drawers of X shaft orientations. This is shown in Screens D121-D123 of drawing 40.

[0156] Next, if it is D classification menu (tool) when the 4th classification menu is chosen by the input device 05, it will progress to step S919 and D classification menu (tool) will be expressed as step S918 according to the amount of drawers of X shaft orientations.

[0157] Moreover, if it is B classification menu (tool) when the 4th classification menu is chosen by the input device 05, it will progress to step S920 and B classification menu (tool) will be expressed as step S918 according to the amount of drawers of Y shaft orientations.

[0158] Drawing 35 and drawing 36 are the cases where there is relation to the relation of the direction of a right angle (adjoining location) of two drawer menus. Even if the physical relationship of each two drawer menus of two drawer menus shown in Screens D100-D103 of drawing 35 and two drawer menus shown in Screens D104-D107 of drawing 36 is the same, the approach displayed changes with sequence to pull out. Priority is shown in the display of the menu pulled out later, the menu pulled out later displays the inside of the menu as usual, and, as for the display of the menu pulled out first, it is influenced [the] in connection with it. That is, as a variable-power reduced display is carried out according to the amount by which B classification menu is pulled out for Y shaft orientations of A classification menu when pulling out B classification menu which is in the physical relationship of a right angle as shown in Screen D102 in the condition that A classification menu is already pulled out as shown in Screen D101 of drawing 35 and it is shown in Screen D103, B classification menu is fixed in the location of the amount of the maximum drawers (one half of a screen).

[0159] Although only a configuration is reduced simply, you may make it the contents of a display in A classification menu change the contents of a display itself. For example, an icon and the alphabetic character are indicated by writing together into A classification menu, and as only the icon was displayed and said in A classification menu, you may make it change an informational class in Screen D103 on Screen D101 according to a screen product.

[0160] Moreover, in drawing 36, when pulling out A classification menu in the physical relationship of a right angle, as are shown in Screen D104, and are shown in Screen D106, and the reduced display of the B classification menu is carried out according to the amount of drawers of X shaft orientations of A classification menu and it is shown in Screen D107 in the condition that B classification menu is already pulled out, the drawer of A classification menu is fixed in the location of the amount of the maximum drawers (one half of a screen).

[0161] Drawing 37 and drawing 38 show the case where there is relation to parallel (confrontation location) relation of two drawer menus.

[0162] Variable power contraction of the A classification menu is carried out keeping the distance between both drawers menus constant in the condition that A classification menu is displayed, according to the amount of drawers of D classification menu, as shown in Screens D110 and D111, when the D menu in parallel physical relationship tended to be pulled out, as shown in Screen D108 of drawing 37. The constant-rate reservation of the display area of the image which should be displayed essentially will always be carried out by this, and, a drawer menu and originally a display image will always be displayed on coincidence.

[0163] Drawing 38 is the case where there are two drawer menus in a vertical location, and is processed like the case of drawing 37.

[0164] Drawing 39 and drawing 40 show the case where three drawer menus are displayed on coincidence, when the 2nd drawer menu has the relation of the direction of a right angle (adjoining location) to the 1st drawer menu. The case where the 3rd drawer menu has a parallel (confrontation location) relation to the 2nd drawer menu as for drawing 39 is shown, and drawing 40 shows the case where the 3rd drawer menu has the relation of the direction of a right angle (adjoining location) to the 2nd drawer menu.

[0165] The reduced display of the B classification menu is carried out at the same time it pulls out C classification menu, with the condition secured, since the reduced display has been carried out to Y shaft orientations by A classification menu as drawing 39 shows to Screens D117-D119. The distance between B classification menu and C classification menu always secures constant value.

[0166] In drawing 40, the reduced display of A classification menu and the B classification menu is carried out to X shaft orientations at the same time it pulls out D classification menu, as shown in Screens D121-D123. The distance of X shaft orientations between D classification menu and A classification menu always secures constant value.

[0167] Drawing 41 and drawing 42 show the case where three drawer menus are displayed on coincidence, when the 2nd drawer menu has a parallel (confrontation location) relation to the 1st drawer menu. Drawing 41 shows the case where the 3rd drawer menu is B classification menus, and drawing 40 shows the case where the 3rd drawer menu is A classification menus.

[0168] In drawing 41, as shown in Screens D125-D127, in connection with the drawer of B classification menu, the reduced display of both A classification menu already displayed and the D classification menu is carried out to coincidence toward Y shaft orientations.

[0169] In drawing 42, as shown in Screens D129-D131, in connection with the drawer of A classification menu, the reduced display of both B classification menu already displayed and the C classification menu is carried out to coincidence toward X shaft orientations.

[0170] Drawing 43 - drawing 46 show the case where four drawer menus are displayed on coincidence.

[0171] Drawing 43 shows the case where the remaining D classification menus are pulled out as a continuation of the condition which shows in Screen D119 of drawing 39.

[0172] Drawing 44 shows the case where the remaining C classification menus are pulled out as a continuation of the condition which shows in Screen D123 of drawing 40.

[0173] Drawing 45 shows the case where the remaining C classification menus are pulled out as a continuation of the condition which shows in Screen D127 of drawing 41.

[0174] Drawing 46 shows the case where the remaining D classification menus are pulled out as a continuation of the condition which shows in Screen D131 of drawing 42.

[0175] in addition, the coordinate in the drawer menu which corresponds regardless of the pulled-out sequence also in the display of which drawer menu to close one of drawer menus -- the input device 05 -- choosing -- as it is -- location direction HEDORAGGU in front of the drawer of each menu -- it carries out.

[0176] (Gestalt of the 7th operation) The gestalt of the 7th operation is explained below.

[0177] Since the configuration of the 7th operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 7th operation gestalt.

[0178] With the 7th operation gestalt, distortion of the configuration of the main image which should be displayed essentially is performed according to the amount of drawers of a drawer menu.

[0179] Drawing 47 is a flow chart which shows the procedure in connection with deformation of the configuration of the main image in accordance with the display of the drawer menu in the 7th operation gestalt and the display of a drawer menu. Drawing 48 is drawing showing the screen displayed on the image display

display 09 in the processing process which displays a drawer menu. In drawing 48, the case where B classification menu is mainly displayed is taken for the example. Hereafter, it explains along with the step shown in drawing 47, referring to drawing 48 suitably.

[0180] The main image A shown in drawing 48 is a photograph, it is a text, or a photograph and a text are intermingled. It is the playback image already stored in the internal memory, or it is assumed also when it is the finder image which CCD of the camera section caught in the state of photography standby.

[0181] In the flow chart of drawing 47, since steps S1001, S1002, S1003, S1004, S1005, S1006, S1009, and S1010 serve as the respectively same contents as steps S101, S102, S103, S104, S105, S106, S112, and S113 shown in drawing 10 $R > 0$, those explanation is omitted.

[0182] If drawer menu display trigger area 11B is chosen and the detection value (the amount of drawers) y of Y axial seat label is changed continuously after that, while displaying B classification menu in step S1011 according to the amount y of drawers By the ratio of the value $(Y-y)$ over the full-screen size Y of Y shaft orientations, variable power contraction is carried out and the main image A is displayed on Y shaft orientations (Screens D154 and D155 of drawing 48). In addition, from the condition of Screen D154 of drawing 48, if the amount y of drawers is smaller than the predetermined amount of definitions when the input device 05 is turned off in the meantime, if return and the amount y of drawers are larger than the predetermined amount of definitions, the condition of Screen D155 of drawing 48 will be maintained to the condition of Screen D150 (Screen D157 of drawing 48).

[0183] And when the amount y of drawers increases further, in step S1012, it is held in the magnitude by which B classification menu was fixed in the amount of the maximum drawers (one half of the screen size of Y shaft orientations), and variable power contraction of the main image A was carried out one half at Y shaft orientations (Screen D156 of drawing 48). In addition, if the input device 05 is turned off in this case, the condition of Screen D156 of drawing 48 will be maintained (Screen D158 of drawing 48).

[0184] The above explanation is also the same as when displaying C classification menu, although it has taken displaying B classification menu for the example.

[0185] Next, if drawer menu display trigger area 11A and D are chosen and the detection value (the amount of drawers) x of X axial seat label is changed continuously after that, it will set to step S1007. While displaying A and D classification menu according to the amount x of drawers, variable power contraction is carried out and the main image A is expressed to X shaft orientations as the ratio of the value $(X-x)$ over the full-screen size X of X shaft orientations. In addition, to the condition of the screen which will display the main image A if the amount x of drawers is smaller than the predetermined amount of definitions when the input device 05 is turned off in the meantime, if return and the amount y of drawers are larger than the predetermined amount of definitions, the condition of the screen at that time will be maintained.

[0186] And when the amount x of drawers increases further, in step S1008, it is held in the magnitude by which A and D classification menu were fixed in the amount of the maximum drawers (one half of the screen size of X shaft orientations), and variable power contraction of the main image A was carried out one half at X shaft orientations. In addition, if the input device 05 is turned off in this case, the condition of the screen at that time will be maintained.

[0187] Drawing 49 is a flow chart which shows the procedure for [which pulls out and closes a menu] having been displayed, and drawing 50 is drawing showing the display screen (screen when B classification menu is chosen especially) in the process of the processing which closes a drawer menu. Hereafter, it explains along with the step shown in drawing 49, referring to drawing 50 suitably.

[0188] Suppose that a drawer menu is displayed and the main image A is first transformed at step S1101 according to the amount of drawers of the displayed drawer menu as shown in Screen D160 of drawing 50. If the input device 05 contacts the touch panel sensor 11 of the image display display 09 in this condition, that coordinate value will be detected (S1102). If it judges whether the detected coordinate value pulls out and it has become a value in menu display trigger area (S1103), and it has become a value in drawer menu display trigger area, and it has not come to progress to step S1104, it will progress to step S1109. In addition, in case it becomes affirmative (YES) decision at step S1103, it may be made to slide as it is, without separating the input input device 05 from the touch panel sensor 11 of the image display display 09, and may be in the condition of Screen D163 from the condition of the case where it will be in the condition of Screen D163 from the condition of Screen D160 of drawing 50 directly, and Screen D161 of drawing 50.

[0189] At step S1109, if either of the feature buttons in a drawer menu is chosen by the input device 05 as shown in Screen D162 of drawing 50 (S1109), the function corresponding to the carbon button will be performed (S1110), and the processing result will be reflected in the main image A. In addition, it is disregarded when the input device 0504 is slid in the direction of an arrow head in this condition, as shown in Screen D164 of drawing 50. Moreover, if the input device 05 is turned off in this condition, it will return to step S1103.

[0190] At step S1104, it judges in any of the menu display trigger area 11A-11D a detection coordinate value pulls out and it is contained. If are contained in drawer menu display trigger area 11A and D, and contained in drawer menu display trigger area 11B and C, it will progress to step S1105 to step S1111.

[0191] At step S1111, it pulls out and the selected thing for which highlighting was carried out, and menu display trigger area carried out buzzer pronunciation, and was chosen as coincidence is shown. Moreover, in this condition, if the input device 05 is turned off, it will return to step S1103. And at step S1112, only a Y coordinate value is supervised among detection coordinate values, and an X coordinate value is disregarded. Here, if the input device 05 is turned off, it will return to step S1103.

[0192] Next, while pulling out according to the amount y of drawers and expressing a menu as step S1113, by the ratio of the value (Y-y) over the full-screen size Y of Y shaft orientations, variable power contraction is carried out and the main image A is displayed on Y shaft orientations (Screens D165 and D167 of drawing 50). In addition, if the amount y of drawers is larger than the predetermined amount of definitions when the input device 05 is turned off in the meantime, the condition of Screen D165 of drawing 50 will be maintained (Screen D166 of drawing 50), and if the amount y of drawers is smaller than the predetermined amount of definitions, it will move from the condition of Screen D167 of drawing 50 to the condition of Screen D168 which carries out the full screen display of the main image A.

[0193] Furthermore, if the amount y of drawers decreases and it will be in the condition of Screen D169 of drawing 50, it will move to the condition of Screen D170 which carries out the full screen display of the main image A (S1114). Of course, even if the input device 05 is turned off, it moves to the condition of Screen D170.

[0194] If it is judged that a detection coordinate value pulls out and it is contained in menu display trigger area 11A and D at step S1104 on the other hand, at step S1105, it pulls out and the selected thing for which highlighting was carried out, and menu display trigger area carried out buzzer pronunciation, and was chosen as coincidence is shown. Moreover, in this condition, if the input device 05 is turned off, it will return to step S1103. And at step S1106, only an X coordinate value is supervised among detection coordinate values, and a Y coordinate value is disregarded. Here, if the input device 05 is turned off, it will return to step S1103.

[0195] Next, while pulling out according to the amount x of drawers and expressing a menu as step S1107, variable power contraction is carried out and the main image A is expressed to X shaft orientations as the ratio of the value (X-x) over the full-screen size X of X shaft orientations. In addition, if the amount x of drawers is larger than the predetermined amount of definitions when the input device 05 is turned off in the meantime, the display condition will be maintained, and if the amount x of drawers is smaller than the predetermined amount of definitions, it will move to the condition of the screen which carries out the full screen display of the main image A.

[0196] Furthermore, if the amount x of drawers decreases and it is set to 0, it will move to the condition of the screen which carries out the full screen display of the main image A (S1108). Of course, even if the input device 05 is turned off, it moves to the condition of the screen which carries out the full screen display of the main image A.

[0197] In addition, the approaches of the deformation reduced display of Image A differ by which drawer menu is pulled out among four. This is explained with reference to drawing 51.

[0198] Drawing 51 is drawing showing the screen of the image display display 09 for explaining the storing location of a drawer menu, and relation with the main image A.

[0199] For example, on Screen D184 of drawing 51 which chose drawer menu display trigger area 11B with the input device 05, and pulled out B classification menu, the list of the colors of the alphabetic character written in the main image A with the input device 05 is arranged like the pallet of a color on B classification menu. Writing is continued as it is, choosing a color, and the writing of an alphabetic character being made to the main image A, pulling out a drawer menu in the state of this screen D184, and changing a color on the way. In this case, when a drawer menu is closed, an alphabetic character may be made to carry out variable power also of

the alphabetic character to a lengthwise direction by the same ratio in accordance with making it express as the ratio when being written on the main image A, and the main image A returning to the original ratio.

[0200] Furthermore, you may make it return in Screens D182, D184, D186, and D188 by the approach of dragging the angle of the main image A by which variable power was carried out to display the main image A at the original rate of an aspect ratio. If this actuation is performed in the state of this result D184, for example, a screen, it will become like Screen D193 of drawing 53 mentioned later.

[0201] In addition, the gestalt of the 7th operation may be applied to the gestalt of the 6th operation.

[0202] (Gestalt of the 8th operation) The gestalt of the 8th operation is explained below.

[0203] Since the configuration of the 8th operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 8th operation gestalt.

[0204] With the 8th operation gestalt, even if a drawer menu is pulled out, the rate of an aspect ratio of the main image which should be displayed essentially is maintained uniformly.

[0205] Drawing 52 is a flow chart which shows the procedure of processing of the main image display in accordance with the display of a drawer menu in the 8th operation gestalt. Drawing 53 is drawing showing the screen displayed on the image display display 09 in the processing process which displays a drawer menu. In drawing 53, the case where B classification menu is displayed is taken for the example. Hereafter, it explains along with the step shown in drawing 52, referring to drawing 53 R> 3 suitably.

[0206] The main image A shown in drawing 48 is a photograph, it is a text, or a photograph and a text are intermingled. It is the playback image already stored in the internal memory, or it is assumed also when it is the finder image which CCD of the camera section caught in the state of photography standby.

[0207] In the flow chart of drawing 52, since steps S1201, S1202, S1203, S1204, S1205, S1206, S1209, and S1210 serve as the respectively same contents as steps S101, S102, S103, S104, S105, S106, S112, and S113 shown in drawing 10 R> 0, those explanation is omitted.

[0208] If drawer menu display trigger area 11B is chosen and the detection value (the amount of drawers) y of Y axial seat label is changed continuously after that, while displaying B classification menu in step S1211 according to the amount y of drawers, with the rate of an aspect ratio of the main image A maintained, variable power contraction will be carried out and it will display (Screens D191 and D192 of drawing 53). In addition, if the input device 05 is turned off in the meantime, the condition of the screen at that time will be maintained.

[0209] And when the amount y of drawers increases further, in step S1212, B classification menu is fixed in the amount of the maximum drawers (one half of the screen size of Y shaft orientations), and the main image A is held in the magnitude by which variable power contraction of X shaft orientations and the Y shaft orientations was carried out one half (Screen D193 of drawing 53). In addition, if the input device 05 is turned off in this case, the condition of Screen D193 of drawing 53 will be maintained.

[0210] The above explanation is also the same as when displaying C classification menu, although it has taken displaying B classification menu for the example.

[0211] Next, if drawer menu display trigger area 11A and D are chosen and the detection value (the amount of drawers) x of X axial seat label is changed continuously after that, while displaying A and D classification menu in step S1207 according to the amount x of drawers, with the rate of an aspect ratio of the main image A maintained, variable power contraction will be carried out and it will display. In addition, if the input device 05 is turned off in the meantime, the condition of the screen at that time will be maintained.

[0212] And when the amount x of drawers increases further, in step S1208, A and D classification menu are fixed in the amount of the maximum drawers (one half of the screen size of X shaft orientations), and the main image A is held in the magnitude by which variable power contraction of X shaft orientations and the Y shaft orientations was carried out one half. In addition, if the input device 05 is turned off in this case, the main image A will be held for X shaft orientations and Y shaft orientations to one half in the magnitude by which variable power contraction was carried out.

[0213] In addition, it combines with the gestalt of other operations of the gestalt of the 8th operation, and a user may enable it to choose one of approaches as arbitration with the actuation means performed while pushing an actuation setup and which carbon button.

[0214] Furthermore, it may be made to display the main image A as shown in drawing 54.

[0215] Drawing 54 is drawing in which the method of presentation of the main image A shown in drawing 53

shows the screen displayed on the image display display 09 explaining the different method of presentation.

[0216] That is, the configuration and in-every-direction display ratio of the main image A are expressed as Screens D195-D197 of the image display display 09 in the form where pull out on it and a menu hangs, without changing at all. Although the method of presentation of this main image A has the fault that some main images A will be missing, when CPU whose data processing is possible is not mounted very much in a high speed, this method of presentation is effective.

[0217] In addition, in this method of presentation, while the input device 05 touches the touch panel sensor 11, a drawer menu laps with the main image A, on the other hand, if the input device 05 is turned off, the main image A will be pulled out and a reduced display will be carried out in the direction of a drawer of a menu. For example, when turned off in the state of Screen D195, after passing through the necessary processing time, it switches to Screen D198. Moreover, when turned off in the state of Screen D196, after passing through the necessary processing time, it switches to Screen D199. Furthermore, when turned off in the state of Screen D197, after passing through the necessary processing time, it switches to Screen D200.

[0218] (Gestalt of the 9th operation) The gestalt of the 9th operation is explained below.

[0219] Since the configuration of the 9th operation gestalt is fundamentally the same as the configuration of the 1st operation gestalt, the configuration of the 1st operation gestalt is diverted in explanation of the 9th operation gestalt.

[0220] With the 9th operation gestalt, the method of presentation of "being a logging help a part in a drawer menu" is adopted as the method of presentation of a drawer menu.

[0221] Drawing 55 and drawing 56 are flow charts which show the procedure of the display process of the drawer menu in the 9th operation gestalt. Drawing 57 is drawing showing the drawer menu in the 9th operation gestalt displayed on the image display display 09, and shows especially A classification menu. Drawing 58 is drawing showing the B-D classification menu displayed on the image display display 09 in the 9th operation gestalt. Hereafter, it explains along with the step shown in drawing 55 and drawing 56, referring to drawing 57 and drawing 58 suitably.

[0222] With the gestalt of each above-mentioned operation, since the functional item indicated in each drawer cannot be grasped until it displays a drawer menu, a user needs to keep in mind what kind of functional item is indicated, respectively. In order to avoid such troublesomeness, with the 9th operation gestalt, the ancillary function for mastering a drawer menu with no problem is added to drawer menu display processing of the 1st operation gestalt.

[0223] That is, generally with a personal computer, the blowdown which explains briefly to what kind of function the icon corresponds in written form is displayed only by putting pointing devices, such as a mouse, on the icon corresponding to a function. However, it is the same expression as the time of not blow off explaining such a function but a drawer menu being displayed, and some drawer menus are cut off, and it displays as "being a logging help a part in a drawer menu", and enables it to check the contents of the drawer menu simply with the gestalt of this operation.

[0224] The processing shown in drawing 55 is processing added to drawer menu display processing of the 1st operation gestalt as mentioned above, and step S1301 performs the same processing as step S103 of drawing 10 in drawing 55.

[0225] Next, it judges whether activation of the function of "being a logging help a part in a drawer menu" is set up beforehand at step S1302. If not set up, it moves to the processing after step S104 of drawing 10.

[0226] On the other hand, if activation of the function of "being a logging help a part in a drawer menu" is set up beforehand, it judges whether it progresses to step S1303, a detection coordinate value pulls out, and it is contained in either of the menu display trigger area 11A-11D, and if are contained in the drawer menu display trigger area 11A and 11D, and contained in the drawer menu display trigger area 11B and 11C, it will progress to step S1305 to step S1311.

[0227] At step S1305, the Y coordinate value of the location where the input device 05 touches in the drawer menu display trigger area 11A and 11D is detected, and a functional item with the Y coordinate value nearest to the Y coordinate value is displayed. The case where drawer menu display trigger area 11A is contacted by the input device 05 in this is taken for an example, and it is shown in Screen D202 of drawing 57. If a drawer menu display trigger area 11A top is slid to the input device 05 in the vertical direction along with a sheathing frame from this condition, it will become like Screens D203-D205 of drawing 57. Thus, even if it does not display all

drawer menus, when contents can be checked and a desired functional item is not found, the inside of other drawer menus can be looked for by the same approach. The image which accomplishes hereafter some drawer menus displayed on Screens D202-D205 of drawing 57 is called "a logging help."

[0228] In this way, if a desired functional item is found and the input device 05 is turned off, in step S1306, it will judge whether predetermined time (for 2 - 3 seconds) passed after OFF. If predetermined time has not passed, it progresses to step S1307, and it starts before progress of predetermined time, and the input device 05 chooses the functional item in a help (icon). Thereby, while suspending the display of a logging help at step S1308, the function corresponding to the selected functional item (icon) is performed.

[0229] In addition, in step S1306, when it is judged that predetermined time has passed, it progresses to step S1309 and the display of a logging help is suspended.

[0230] On the other hand, at step S1311, the X coordinate value of the location where the input device 05 touches in the drawer menu display trigger area 11B and 11C is detected, and a functional item with the X coordinate value nearest to the X coordinate value is displayed.

[0231] In this way, if a desired functional item is found and the input device 05 is turned off, in step S1312, it will judge whether predetermined time (for 2 - 3 seconds) passed after OFF. If predetermined time has not passed, it progresses to step S1313, and it starts before progress of predetermined time, and the input device 05 chooses the functional item in a help (icon). Thereby, while suspending the display of a logging help at step S1314, the function corresponding to the selected functional item (icon) is performed.

[0232] In addition, in step S1312, when it is judged that predetermined time has passed, it progresses to step S1315 and the display of a logging help is suspended.

[0233] Drawing 58 displays a logging help when the drawer menu display trigger area 11B, 11C, and 11D is contacted by the input device 05. In addition, illustration of the icon of the contents of the logging help etc. is omitted. Moreover, an arrow head shows the slide direction of the input device 05.

[0234] Furthermore, the gestalt of other operations based on the gestalt of the 9th operation is explained with reference to drawing 59. That is, the drawer help shown in the gestalt of the 9th operation shows the example of a display of other drawer helps when the ability not to display as mentioned above according to a certain constraint.

[0235] Drawing 59 is drawing showing each drawer menu in the gestalt of other operations based on the gestalt of the 9th operation. Screens D211-D215 after the image display display 09 illustrated here are the examples of a display at the time of carrying out the coordinate directions of the drawer menu display trigger area 11A altogether.

[0236] On Screen D211, a little more viewing areas of a drawer help are secured. By this, the contents of the drawer help are made legible.

[0237] Screen D212 shows the logging help assumed like the gestalt of the 3rd operation when [which was explained with reference to drawing 26] the amount of the maximum drawers is extended also with the gestalt of the 9th operation.

[0238] Without sliding the input device 05 in drawer menu display trigger area, all the functional items in a drawer menu are pulled out, and it expresses to a help as Screen D213.

[0239] On Screen D214, only the alphabetic character notation of the name of a functional item is performed in a drawer help. By this, reduction of the screen product of the main image A is stopped to the minimum.

[0240] A scroll button is made to arrange in software in a drawer help in drawer menu display trigger area on Screen D215 supposing the case where it cannot be realized that the input device 05 is slid.

[0241] (Gestalt of other operations) You may make it combine suitably the gestalt of each operation explained above.

[0242] Moreover, in the gestalt of each above-mentioned operation, although the pocket mold information processor 01 has a point which application of this invention is not restricted to it and is different about operating instructions although explained as that the size of whose is the Personal Digital Assistant of notebook size, it can apply this invention to the big screen image display display which has other pointing devices as an actuation means, the view finder of an eyepiece type, etc.

[0243] Moreover, this invention can be adapted also for the device accompanied by image display screens, such as a still camera, a video camera, a notebook computer, a head mount display, and a car-navigation system.

[0244] Moreover, this invention is applicable to a non-portable personal computer, a non-portable workstation,

etc. For example, if in the case of a personal computer a mouse is made to slide in the vertical and horizontal direction of arbitration and cursor arrives at the edge on a screen, the bar for pulling out in the display position and pulling out a menu will be displayed. And this invention is applicable by taking in the operating instructions of making direction HEMAUSU of a center drag from the condition. In this case, the list list of functional items can be displayed quickly, and there is a merit that a user can adjust the amount of a viewing area to arbitration. [0245] moreover, with the equipment which carries the so-called cross-joint key by which MEKASUITCHI was arranged by the form of a cross joint vertically and horizontally If one of the drawer menus is chosen and a finger is lifted from a cross-joint key by pushing vertical and horizontal any they are

Since it became timeout time, translation result display processing is stopped.

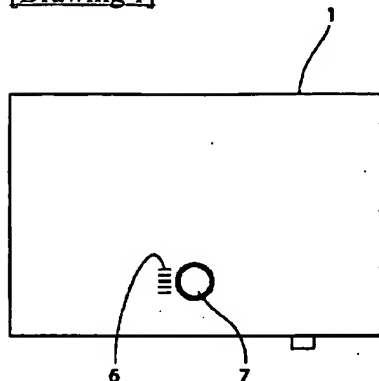
* NOTICES *

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

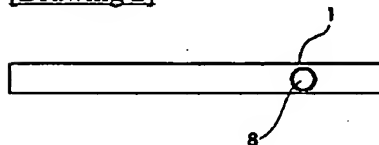
1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

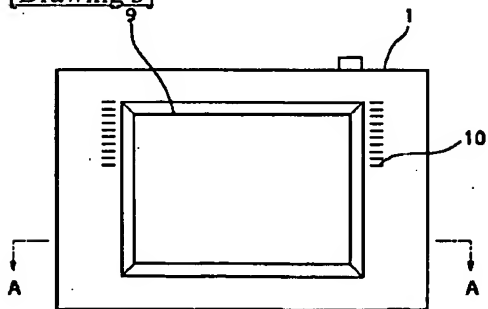
[Drawing 1]



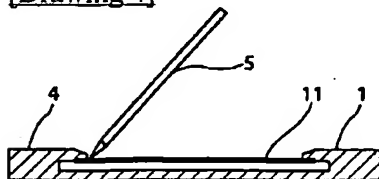
[Drawing 2]



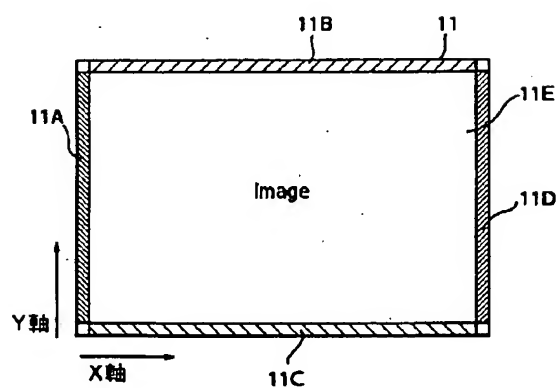
[Drawing 3]



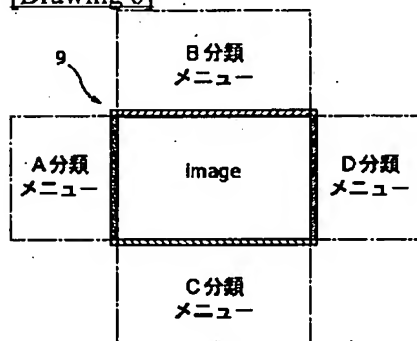
[Drawing 4]



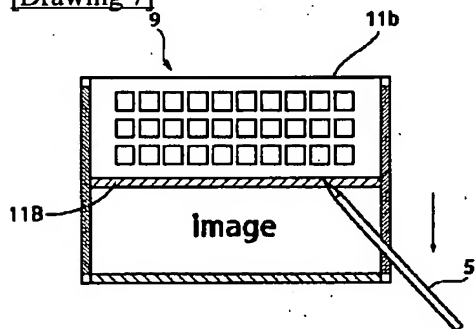
[Drawing 5]



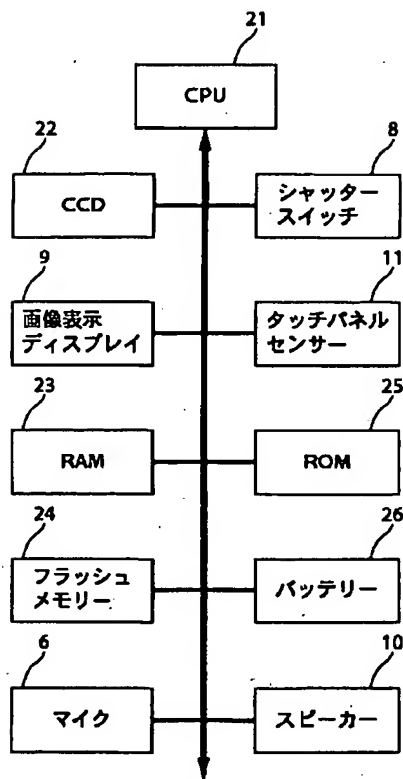
[Drawing 6]



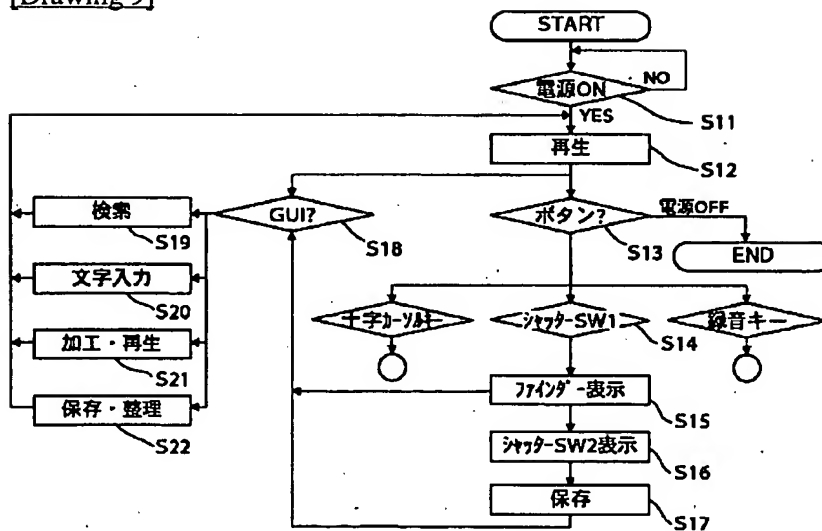
[Drawing 7]



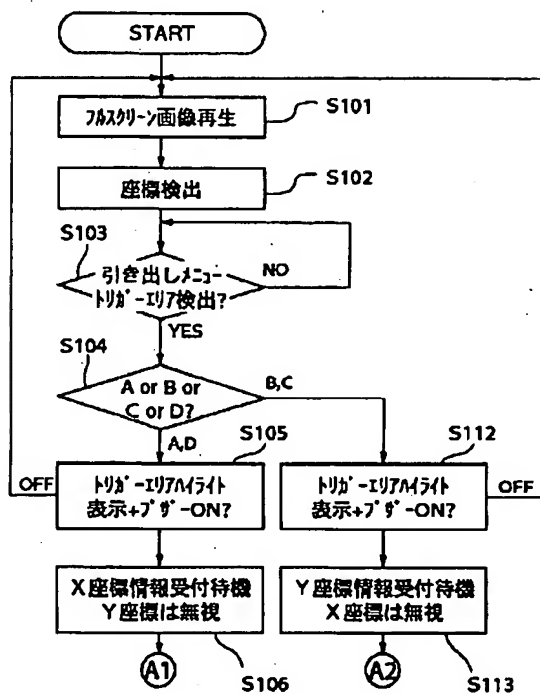
[Drawing 8]



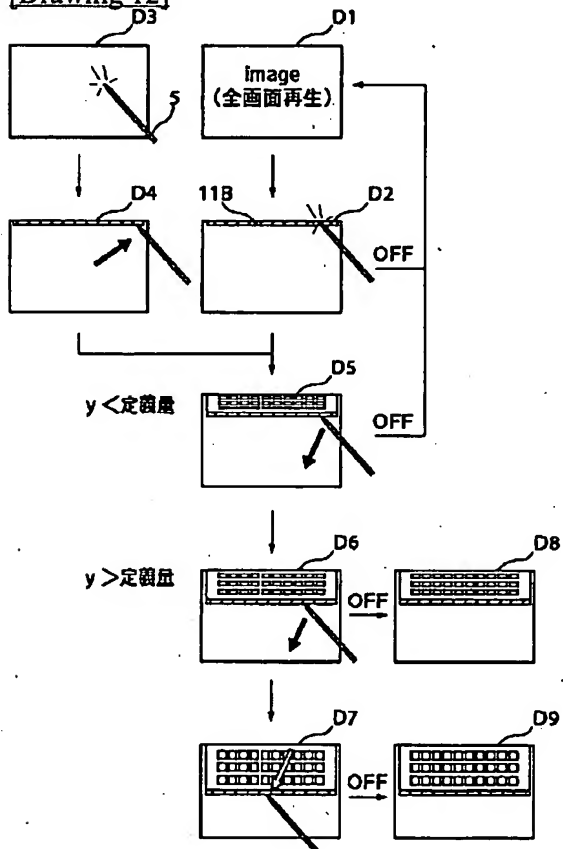
[Drawing 9]



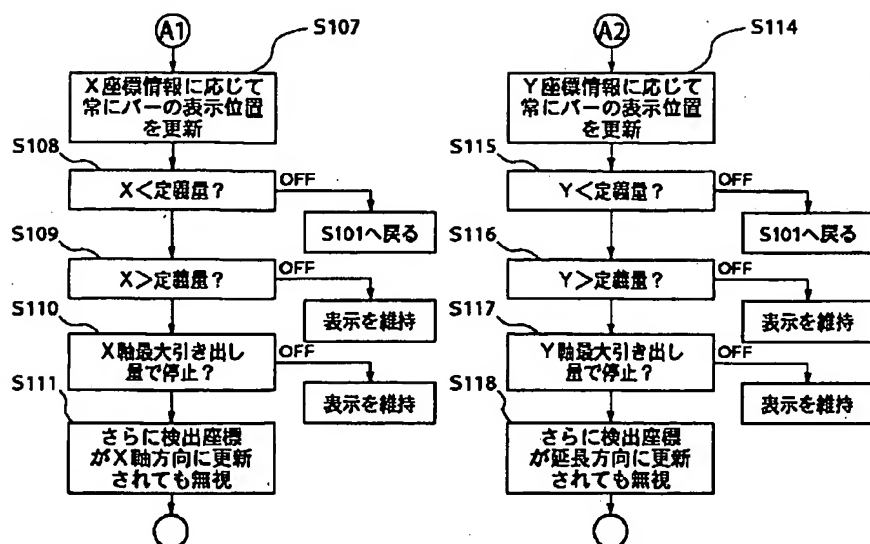
[Drawing 10]



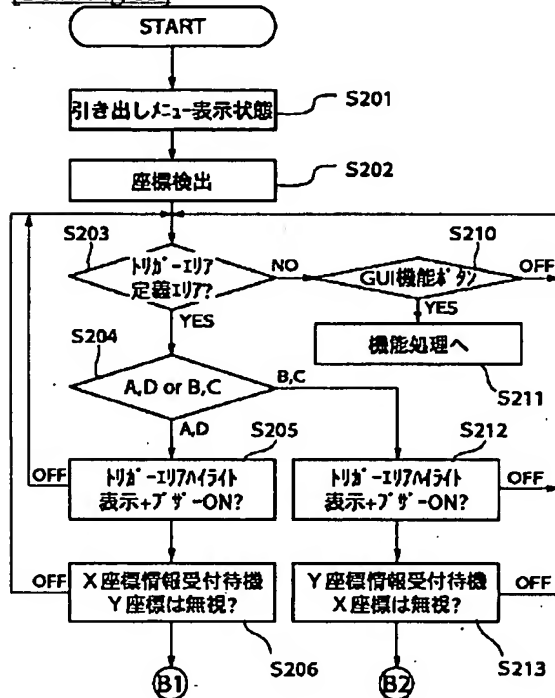
[Drawing 12]



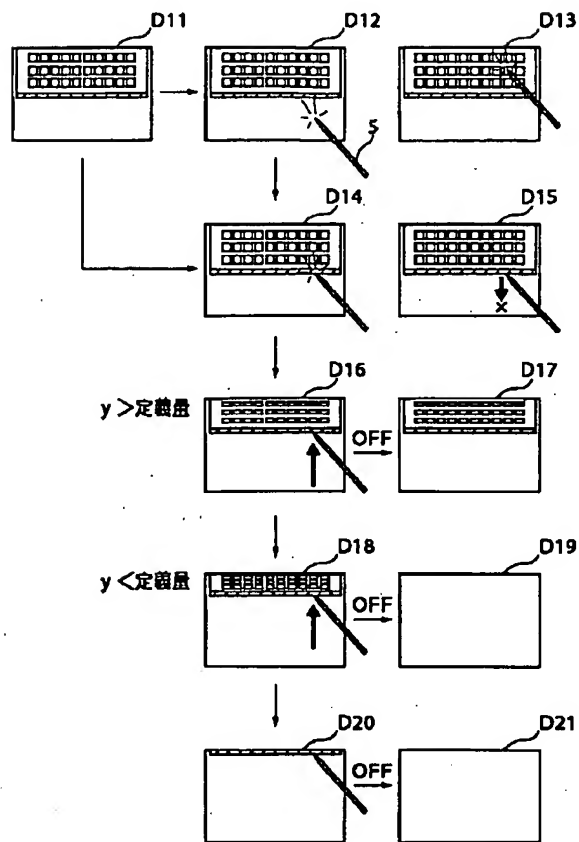
[Drawing 11]



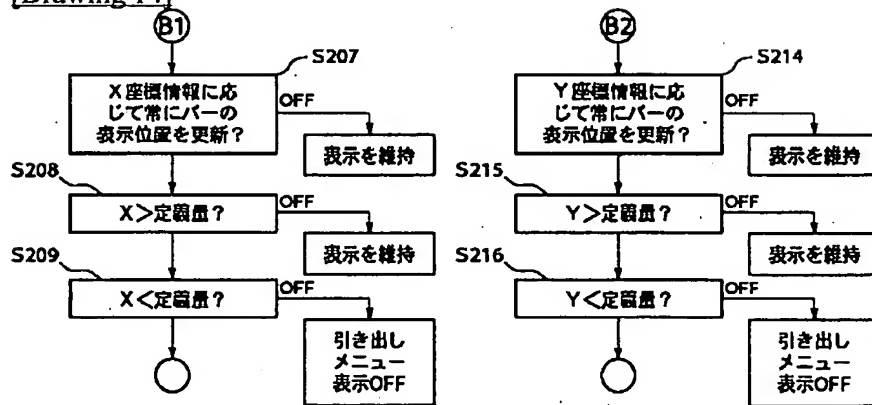
[Drawing 13]



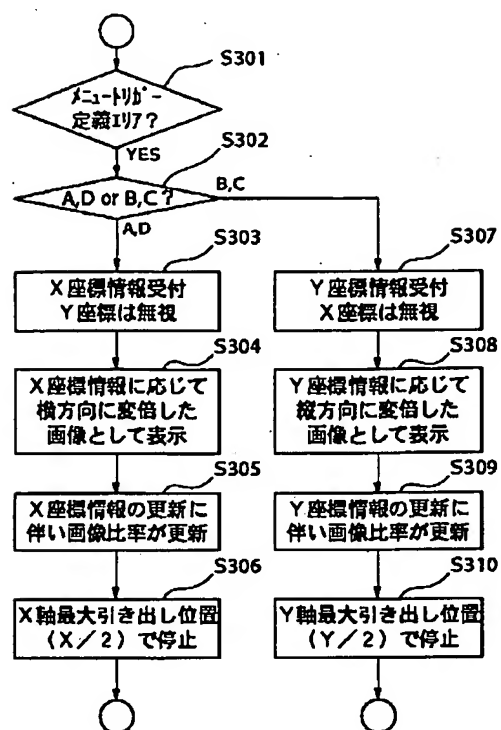
[Drawing 15]



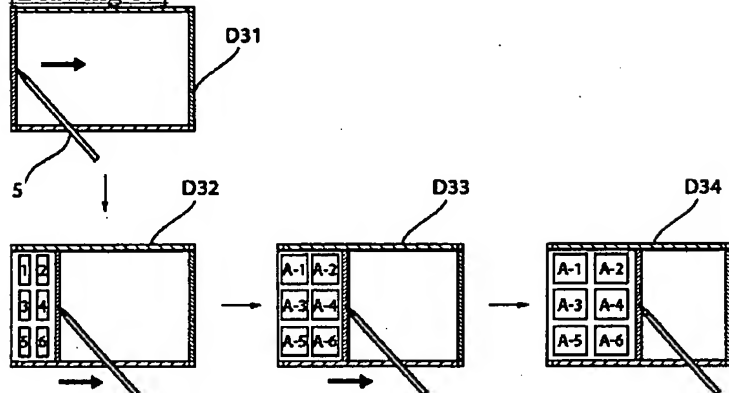
[Drawing 14]



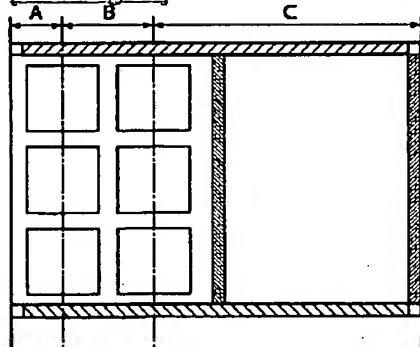
[Drawing 16]



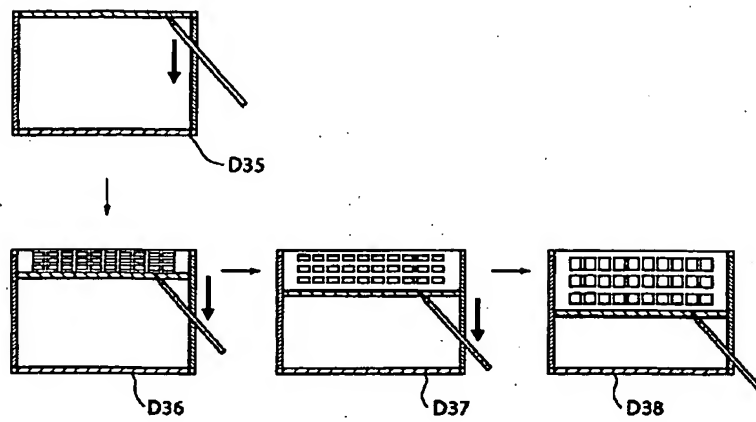
[Drawing 17]



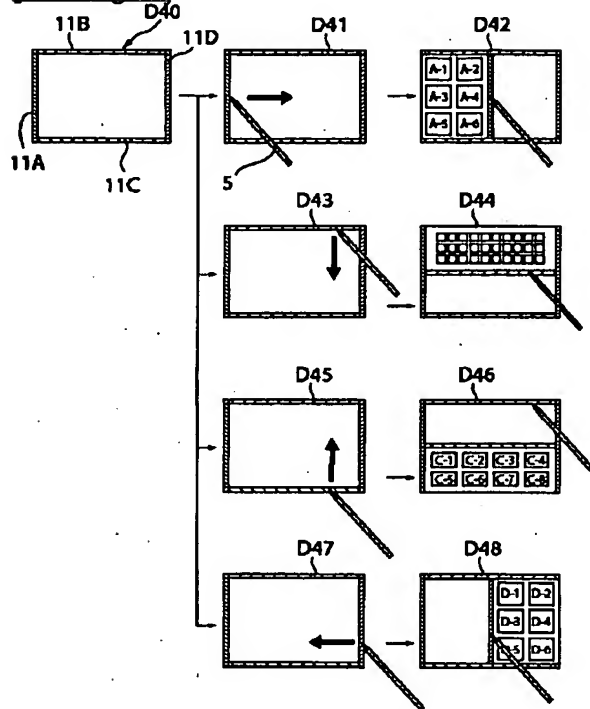
[Drawing 21]



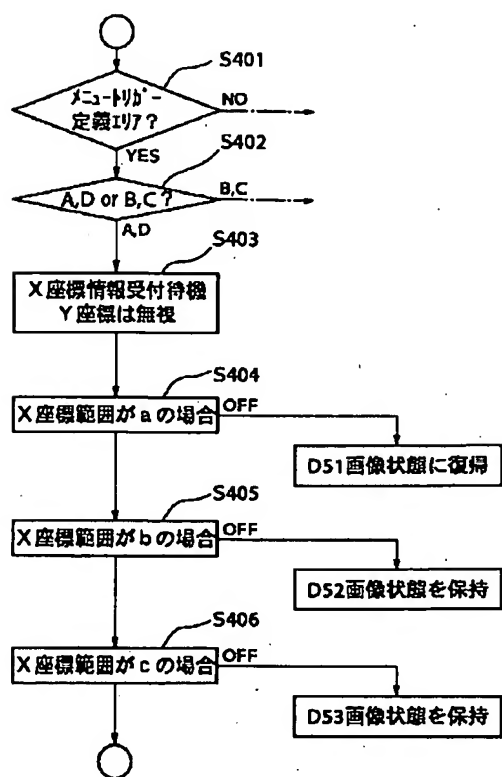
[Drawing 18]



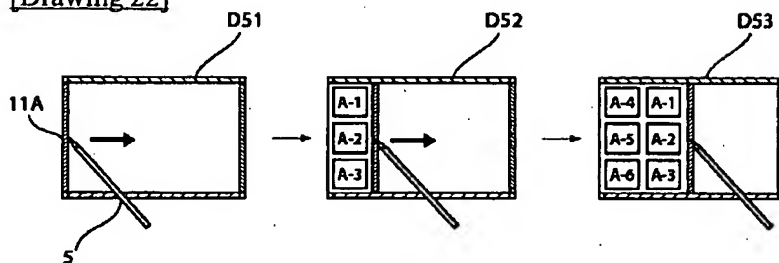
[Drawing 19]



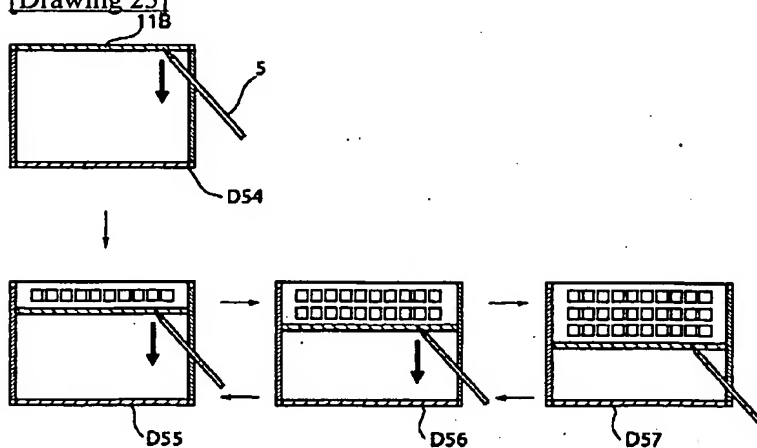
[Drawing 20]



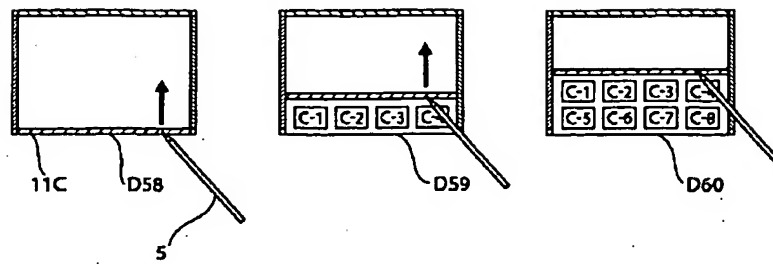
[Drawing 22]



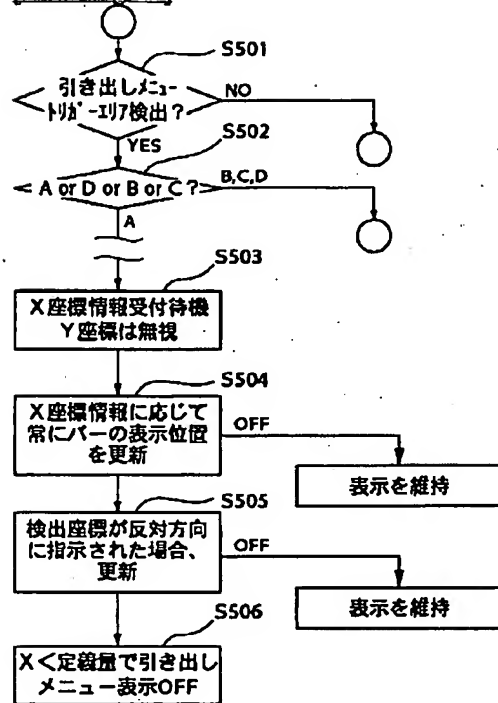
[Drawing 23]



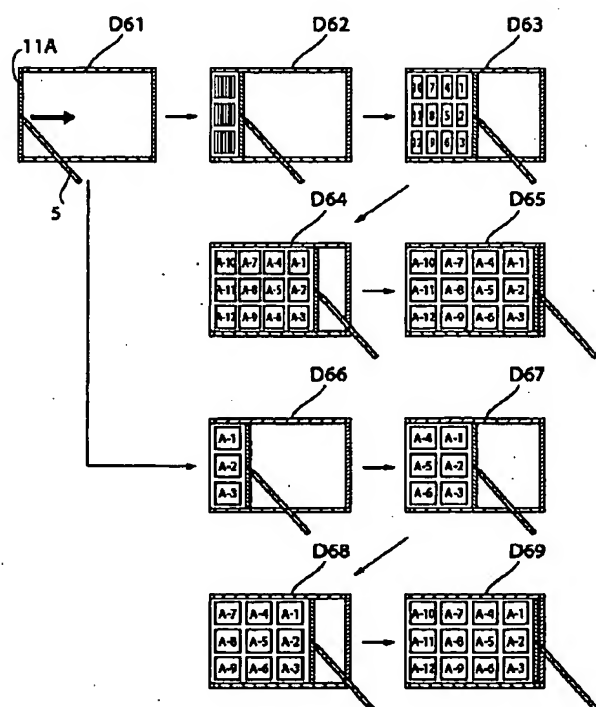
[Drawing 24]



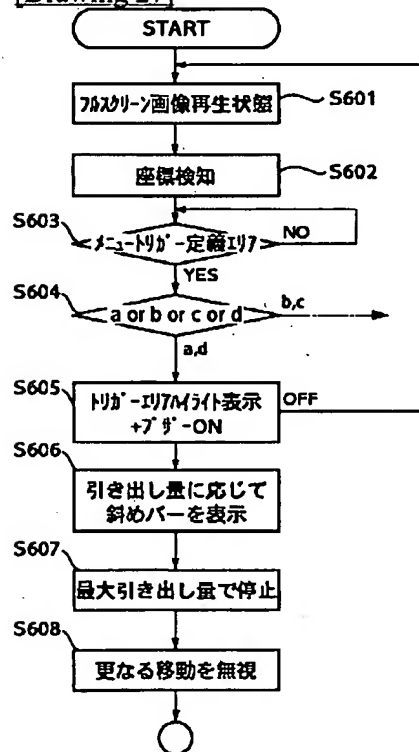
[Drawing 25]



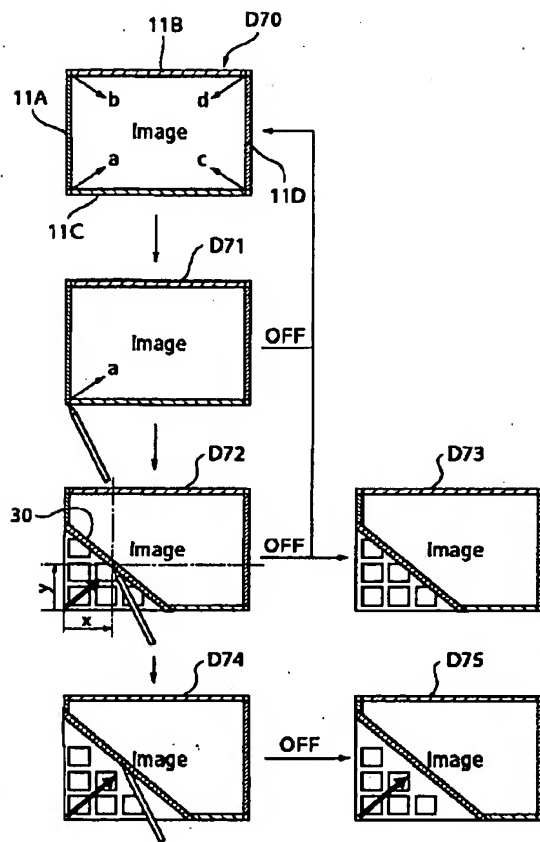
[Drawing 26]



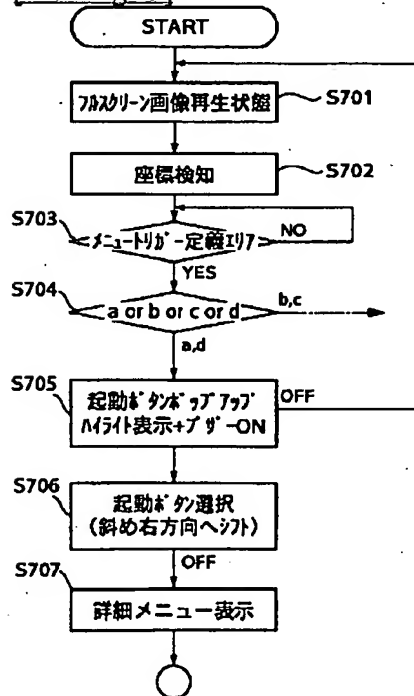
[Drawing 27]



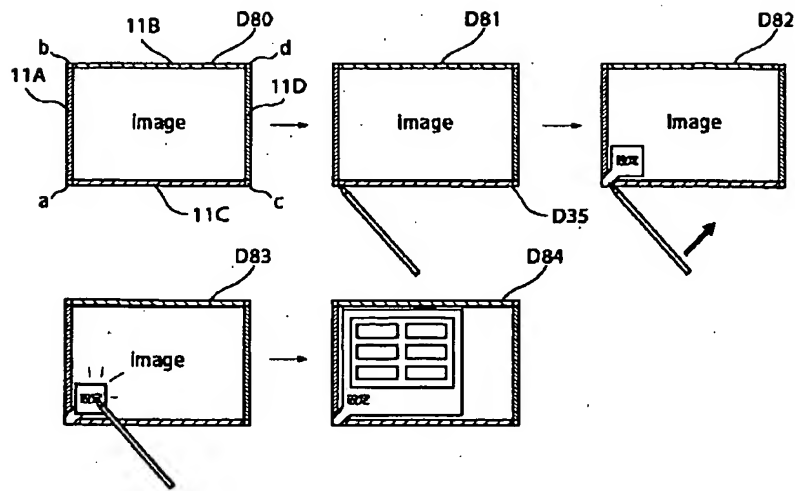
[Drawing 28]



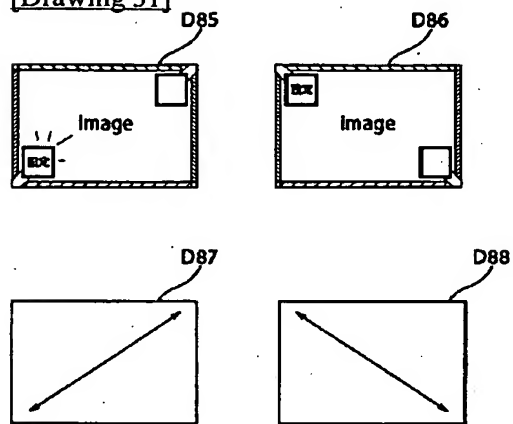
[Drawing 29]



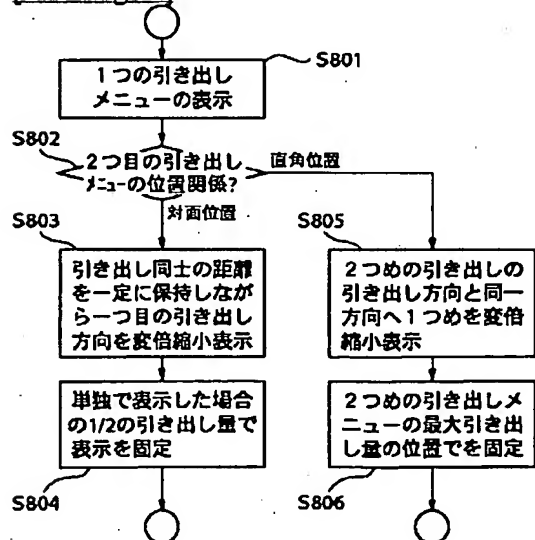
[Drawing 30]



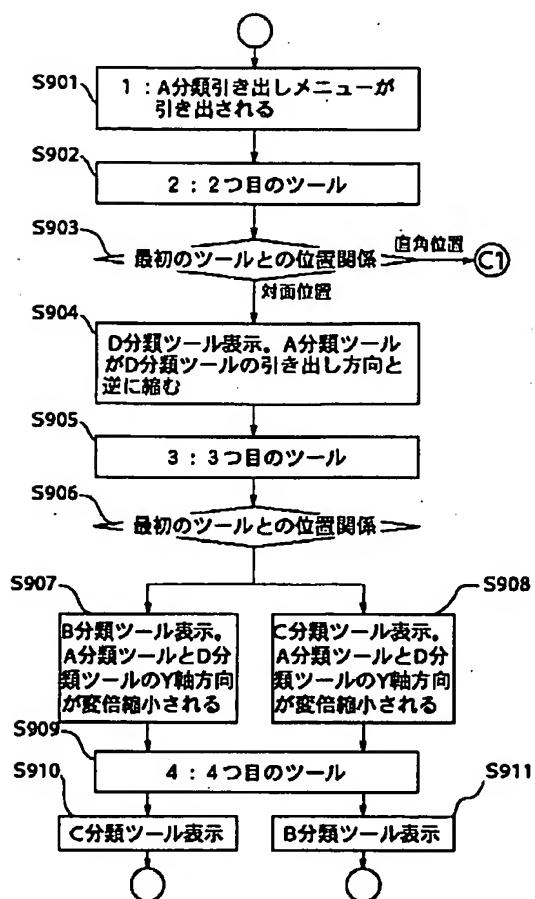
[Drawing 31]



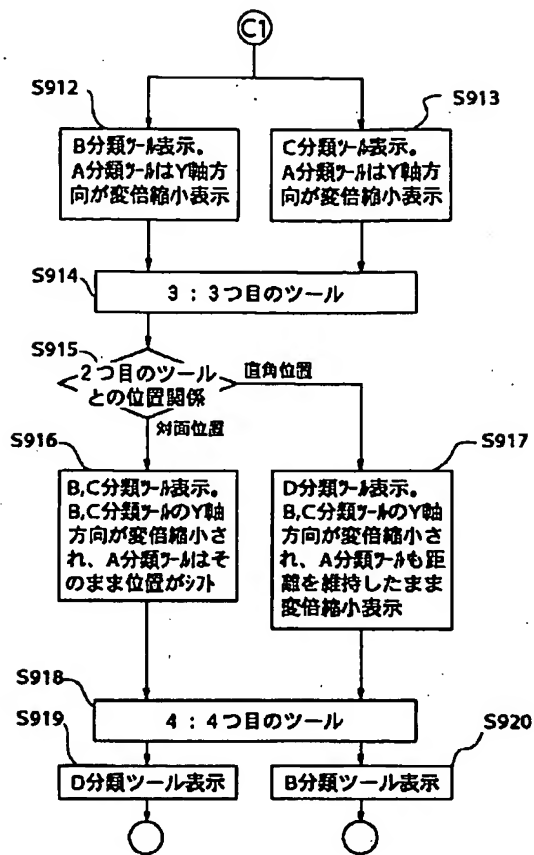
[Drawing 32]



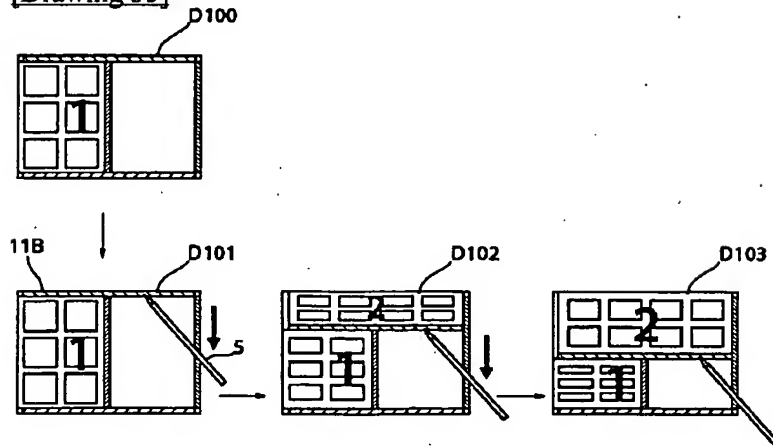
[Drawing 33]



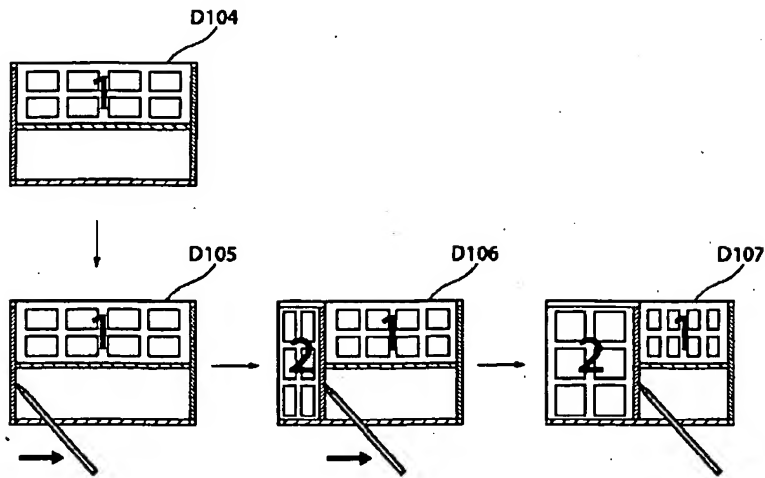
[Drawing 34]



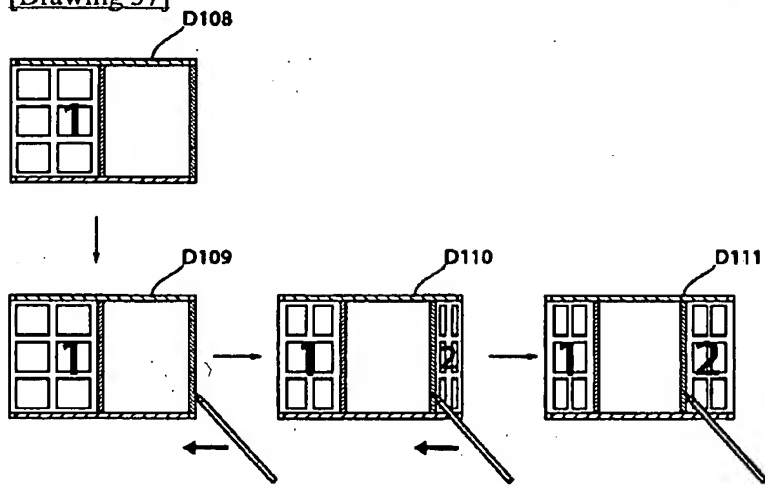
[Drawing 35]



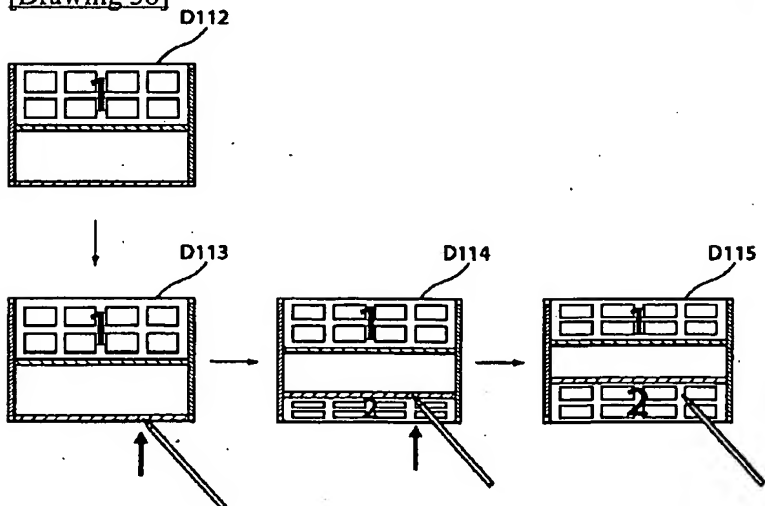
[Drawing 36]



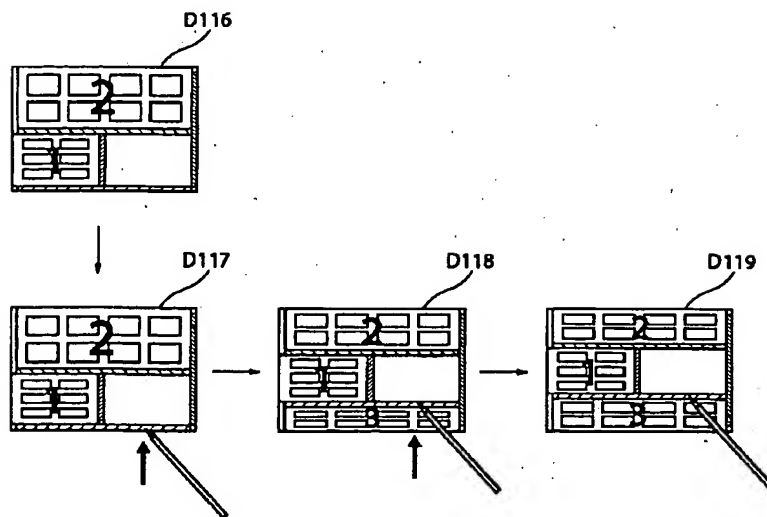
[Drawing 37]



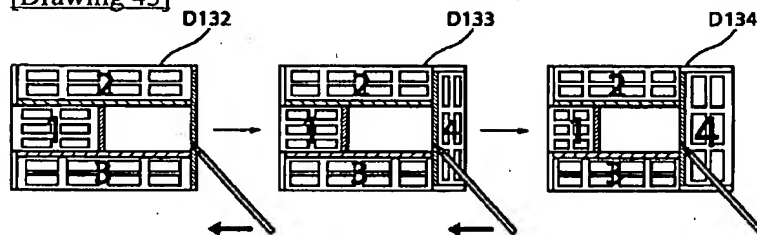
[Drawing 38]



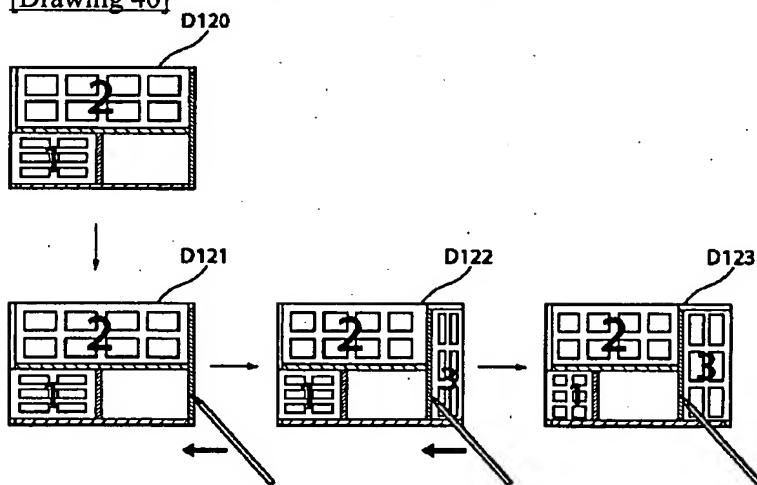
[Drawing 39]



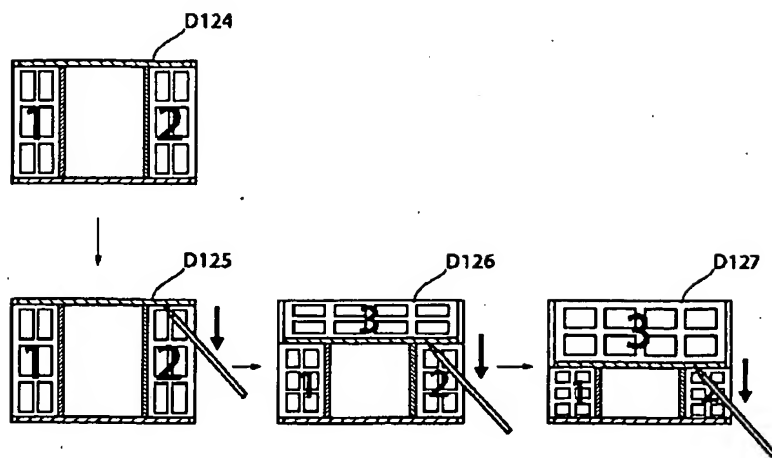
[Drawing 43]



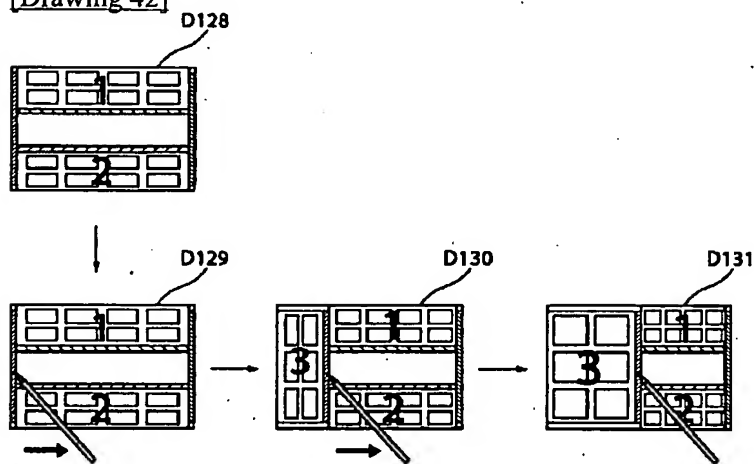
[Drawing 40]



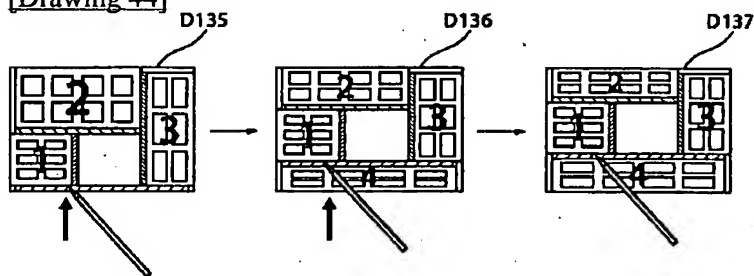
[Drawing 41]



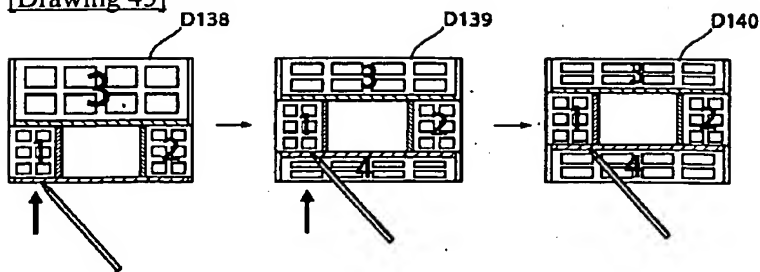
[Drawing 42]



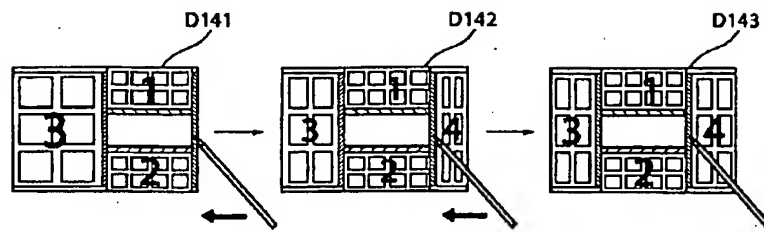
[Drawing 44]



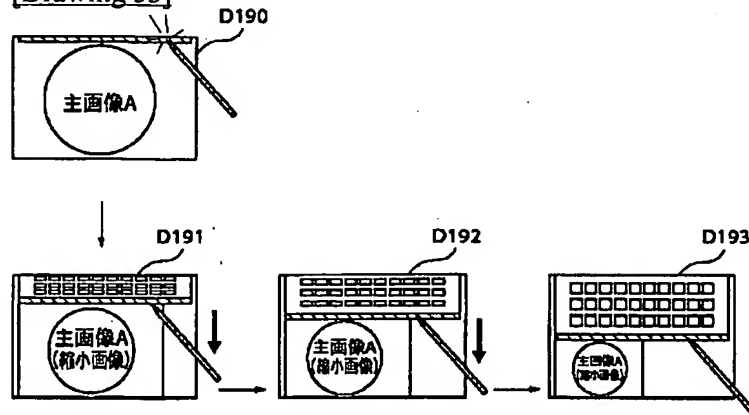
[Drawing 45]



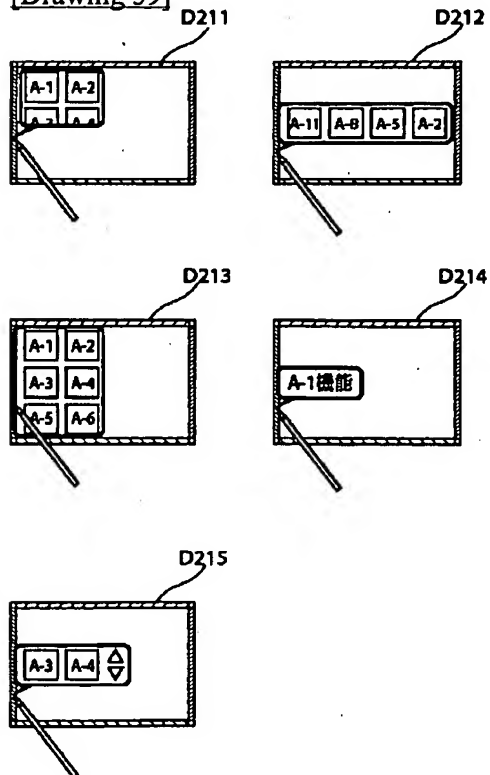
[Drawing 46]



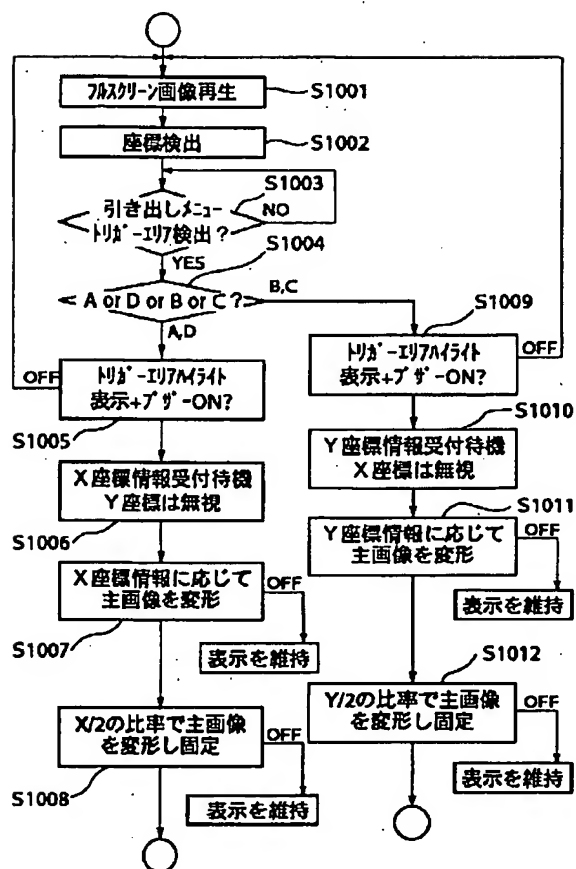
[Drawing 53]



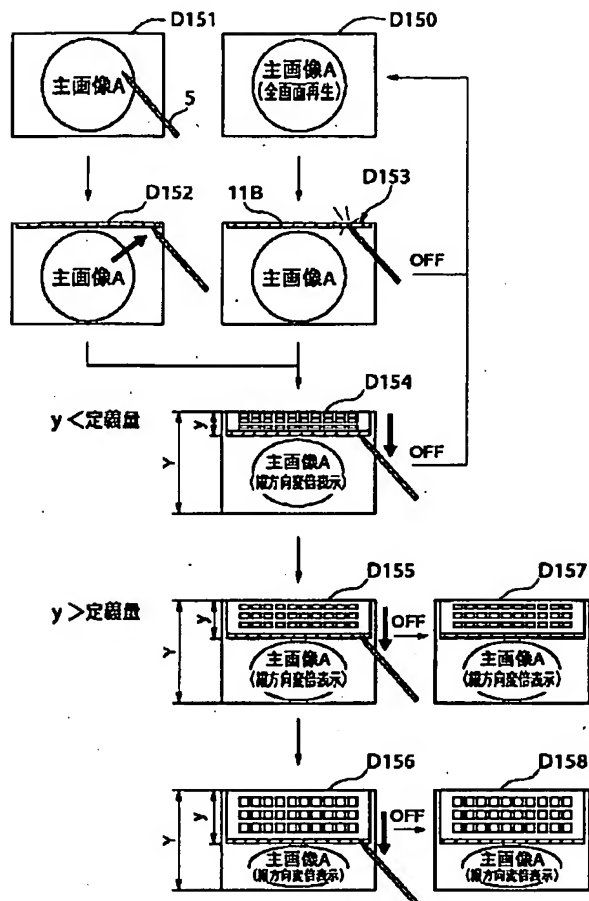
[Drawing 59]



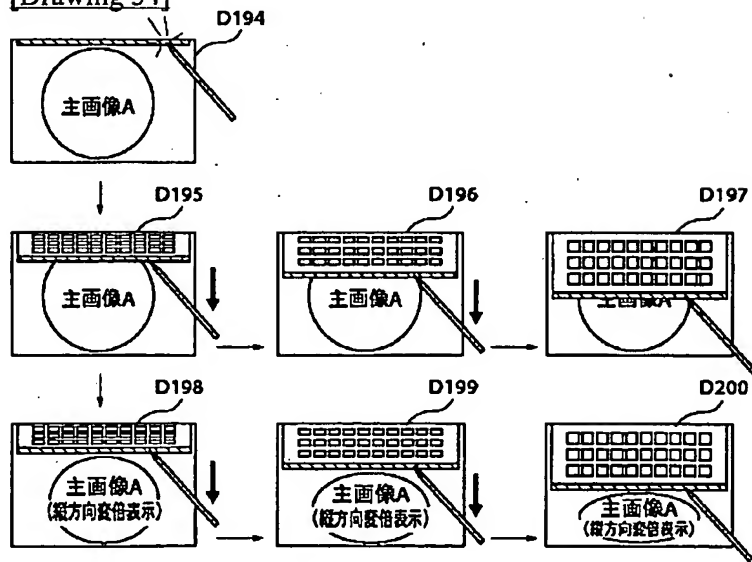
[Drawing 47]



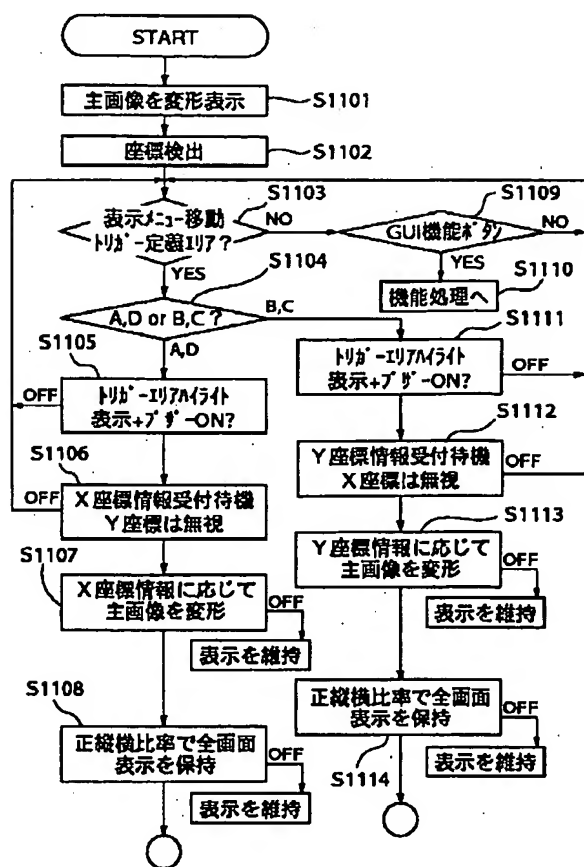
[Drawing 48]



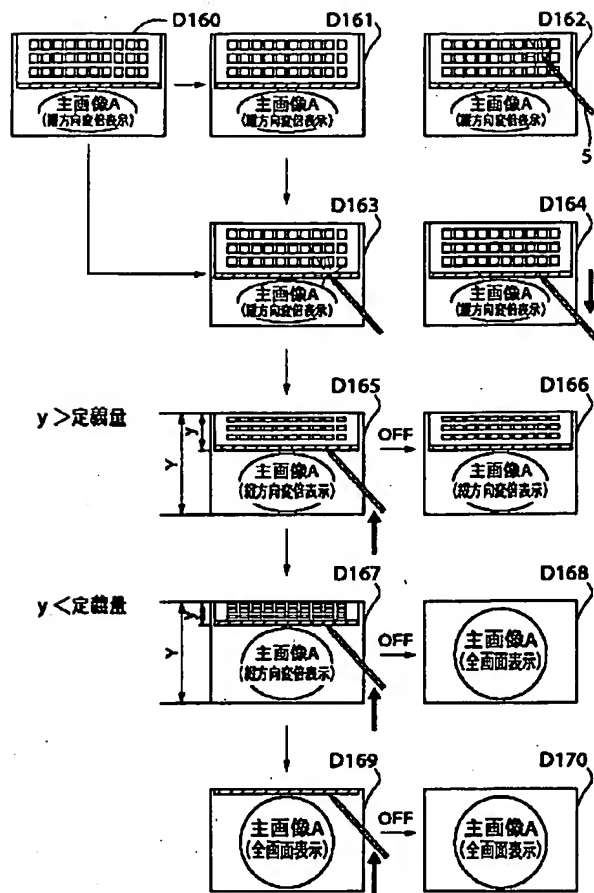
[Drawing 54]



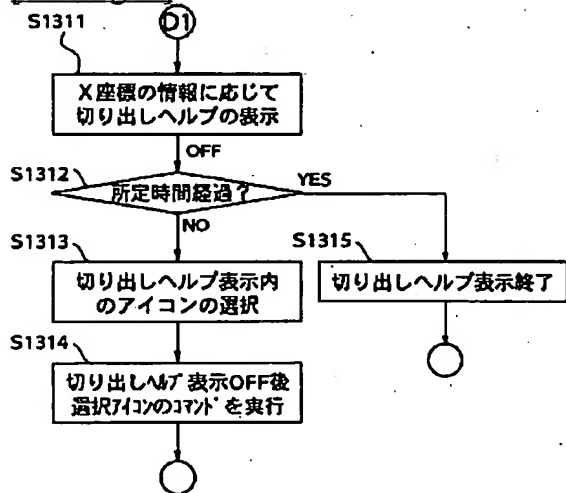
[Drawing 49]



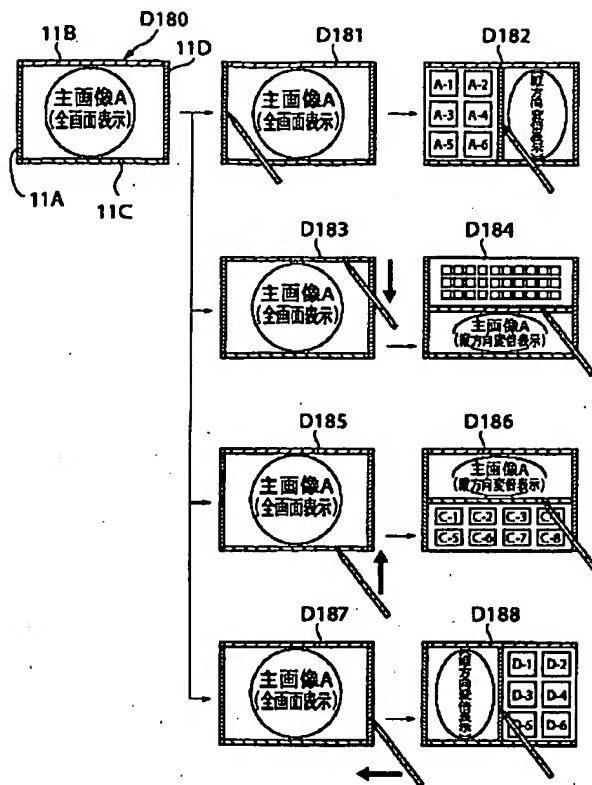
[Drawing 50]



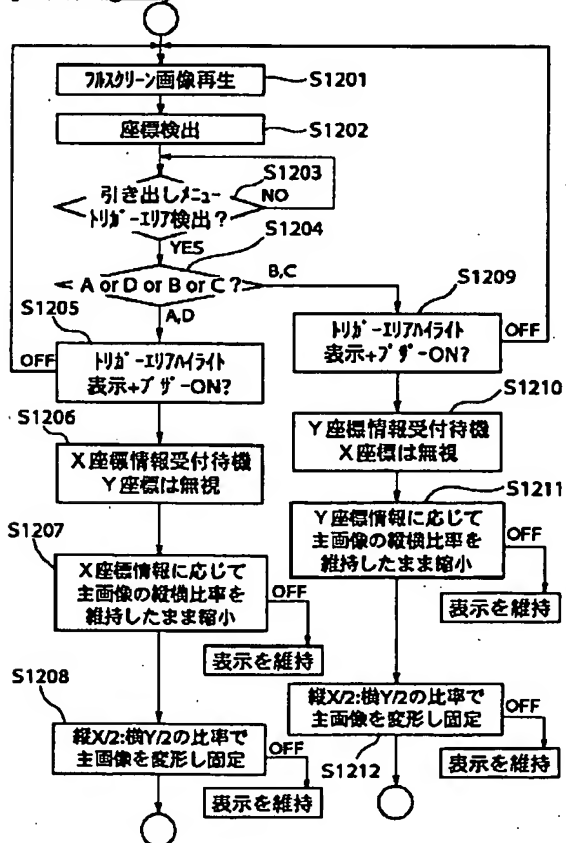
[Drawing 56]



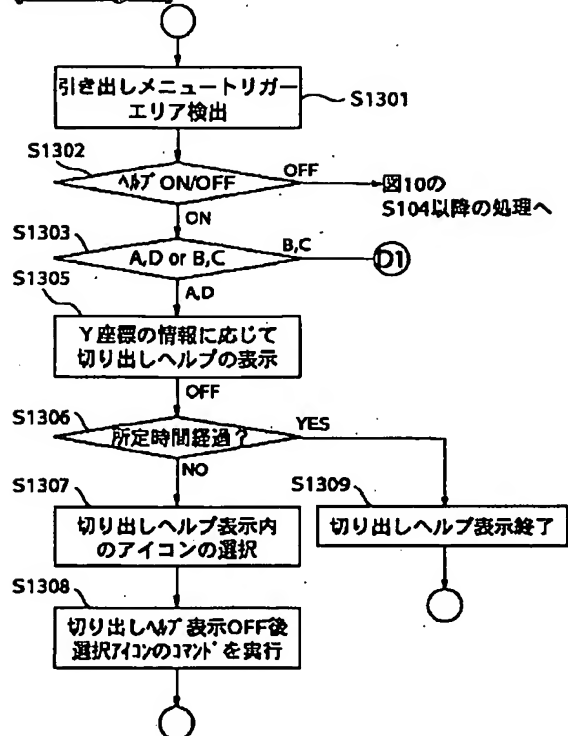
[Drawing 51]



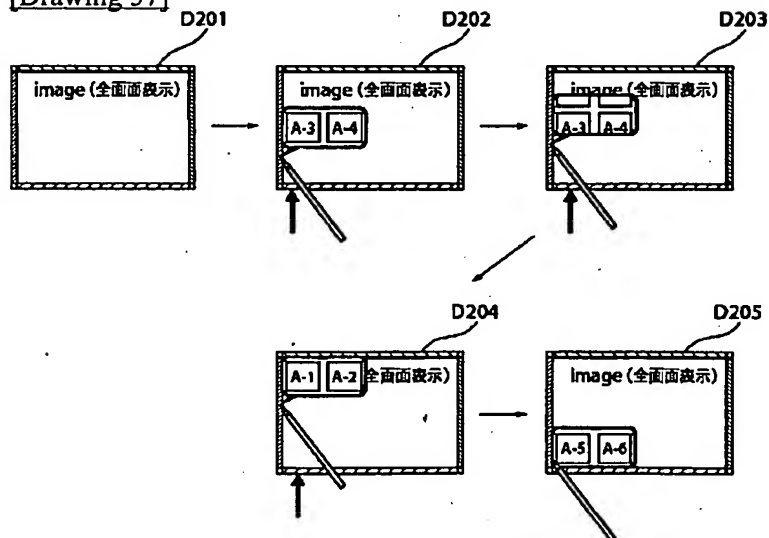
[Drawing 52]



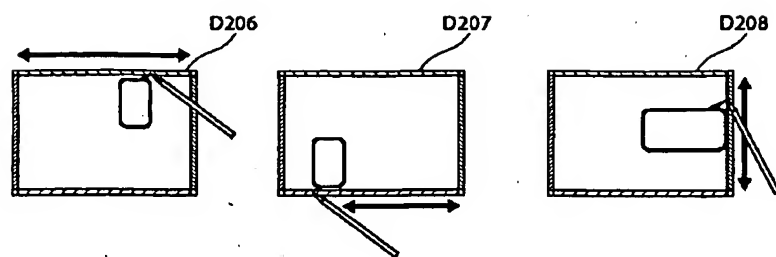
[Drawing 55]



[Drawing 57]



[Drawing 58]



[Translation done.]